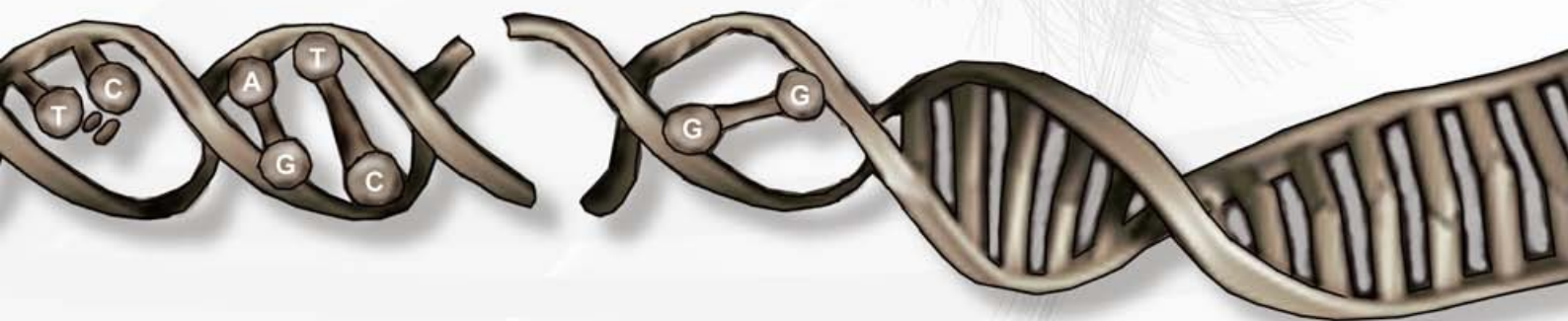


Genomic Stability & DNA Repair

Antibodies & Kits

Quality Antibodies
Quality Results



ANTIBODIES

The Company

GeneTex produces validated antibodies and has been widely recognized for scientific advancement through the complementation of our applied production mastery with a state-of-the-art, full-scale laboratory and animal facility. Our staff and researchers have earned a collective, trusted reputation from the research community for the quality and reliability of our antibodies.

Our facility provides large-scale antibody production capacities, which employ highly specific antigen affinity purification, and promote the establishment of a comprehensive antibody collection covering a wide spectrum of research fields.

GeneTex serves as both a manufacturer and a retailer. We are able to fulfill the demands of leading laboratories and research facilities by providing accurate technical support and reliable customer service.

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Application Key

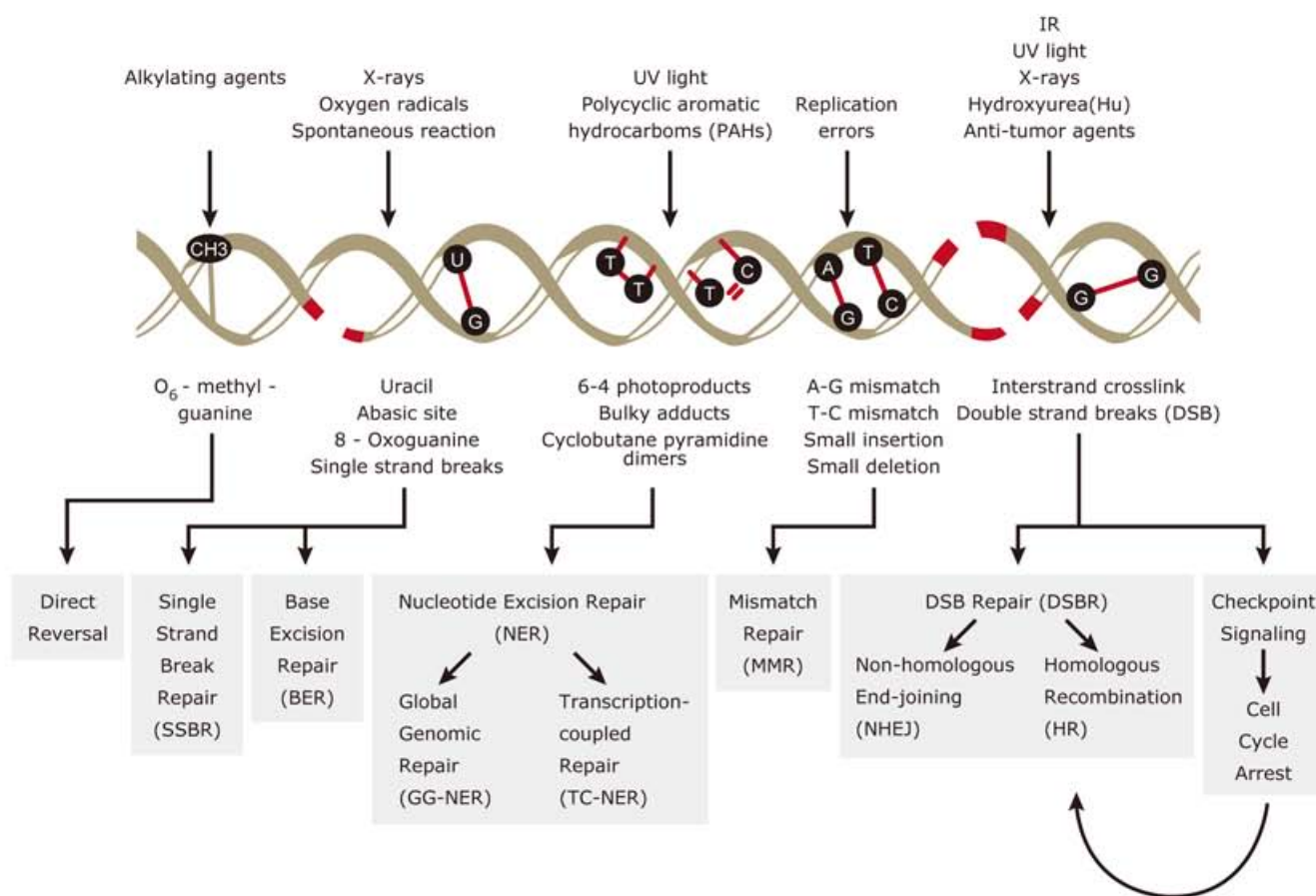
ChIP – Chromatin-immunoprecipitation
ELISA – Enzyme-linked immunosorbent assay
ELISA-Ag – Enzyme-linked immunosorbent assay using antigen
FACS – Fluorescence-activated cell sorting
GSA – Gel supersht assays
ICC/IF – Immunocytochemistry / Immunofluorescence
IHC – Immunohistochemistry
IHC-Fr – Immunohistochemistry frozen sections
IHC-P – Immunohistochemistry paraffin - embedded sections
IP – Immunoprecipitation
RIA – Radioimmunoassay
WB – Western blot

Host & Reactivity Key

Hm – Hamster
Hu – Human
Mk – Monkey
Ms – Mouse
Rat – Rat
Rb – Rabbit
Sh – Sheep
Xl – Xenopus
Zfsh – Zebrafish

DNA Damage & Repair Overview

DNA plays a critical role as a repository of hereditary information. However, many environmental factors and endogenous cellular processes result in a high frequency of DNA damage. DNA repair mechanisms are essential for genomic stability, maintenance of proper cellular function and survival for all organisms. Eukaryotic cells have developed various pathways for DNA repair. In humans, DNA damage is involved not only in tumor formation and aging but also a variety of genetically-inherited disorders including Xeroderma pigmentosum (XP), Cockayne's syndrome (CS), trichothiodystrophy (TTD) and hereditary non-polyposis colon cancer (HNPCC).



Sampler Kits

GeneTex is proud to introduce a series of antibody sampler kits containing sample sizes of several antibodies. These sampler kits are economical, convenient and efficient tools for the study of DNA repair.

Cat. No.	Product Name	Content	Host & Clonality	Reactivity	Application
GTX300020_Base Excision Repair Sampler Kit – 1					
		APE1 antibody	Rb pAb	Hu	ICC/IF, WB
		DNA pol δ antibody	Rb pAb	Hu	ICC/IF, WB
		DNA Ligase I antibody	Rb pAb	Hu	WB
		FEN1 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
		HMG1 antibody	Rb pAb	Hu	IHC-P, WB
		PARP1 antibody	Rb pAb	Hu	ICC/IF, WB
		PCNA antibody	Rb pAb	Hu, Ms, Zfsh	ICC/IF, IHC, WB
GTX300021_Base Excision Repair Sampler Kit – 2					
		APE1 antibody	Rb pAb	Hu	ICC/IF, WB
		DNA ligase 3 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
		PARP1 antibody	Rb pAb	Hu	ICC/IF, WB
		PNK antibody	Rb pAb	Hu	WB
		XRCC1 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX300022_Nucleotide Excision Repair Sampler Kit – 1					
		CSA antibody	Rb pAb	Hu	ICC/IF, WB
		CSB antibody	Rb pAb	Hu	ICC/IF, WB
		DD1 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC-P, WB
		XPC [3.26] antibody	Ms mAb	Hu	ICC/IF, IHC-P, WB
GTX300023_Nucleotide Excision Repair Sampler Kit – 2					
		ERCC1 antibody	Rb pAb	Hu	WB
		XPA antibody	Rb pAb	Hu	ICC/IF, IHC, WB
		XPB antibody	Rb pAb	Hu	ICC/IF, WB
		XPC [3.26] antibody	Ms mAb	Hu	ICC/IF, IHC-P, WB
		XPD antibody	Rb pAb	Hu	IHC, WB
		POLH antibody	Rb pAb	Hu	IHC-P, WB
		RPA70 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX300019_Mismatch Repair Sampler Kit					
		HMG1 antibody	Rb pAb	Hu	IHC-P, WB
		MLH1 antibody	Rb pAb	Hu	ICC/IF, WB
		PCNA antibody	Rb pAb	Hu, Ms, Zfsh	ICC/IF, IHC, WB
		PMS2 antibody	Rb pAb	Hu	WB
		RFC2 antibody	Rb pAb	Hu	WB
		RFC4 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX300016_Non-homologous End Joining Sampler Kit – 1					
		ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
		ATM phospho S1981 [EP1890Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
		Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
		Ku70 antibody	Rb pAb	Hu	ICC/IF, WB
		Ku80 [149.8] antibody	Ms mAb	Hu	WB

Cat. No.	Product Name	Content	Host & Clonality	Reactivity	Application
GTX300017_Non-homologous End Joining Sampler Kit – 2					
		Artemis antibody	Rb pAb	Hu	IHC, WB
		DNA ligase IV antibody	Rb pAb	Hu	WB
		DNA-PKcs antibody	Rb pAb	Hu	WB
		Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
		XLF antibody	Rb pAb	Hu	WB
		XRCC4 antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX300014_Homologous Recombination Sampler Kit					
		BRCA2 [5F6] antibody	Ms mAb	Hu	IHC-Fr, WB
		Rad51 [13E4] antibody	Ms mAb	Hu	WB
		Rad51AP1 antibody	Rb pAb	Hu	WB
		Rad52 [5H9] antibody	Ms mAb	Hu	WB
		Rad54 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC, WB
		Rad54B antibody	Rb pAb	Hu	WB
		RPA70 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX300018_DSB Relative Repair Sampler Kit					
		ATM phospho S1981 [EP1890Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
		Histone H2A.X Phospho (pS139) [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
		Ku70 antibody	Rb pAb	Hu	ICC/IF, WB
		Ku80 [149.8] antibody	Ms mAb	Hu	WB
		Mre11 [12D7] antibody	Ms mAb	Hu	ELISA, ICC/IF, IHC-P, IP, WB
		NBS1 [1C3] antibody	Ms mAb	Hu	IP, WB
		Rad50 [13B3] antibody	Ms mAb	Hu	ICC/IF, IP, WB
GTX300010_DSB Damage Recognition Sampler Kit – MRN complex					
		Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
		Mre11 [12D7] antibody	Ms mAb	Hu	ELISA, ICC/IF, IHC-P, IP, WB
		NBS1 [1C3] antibody	Ms mAb	Hu	IP, WB
		NBS1 phospho S343 [EP178] antibody	Rb mAb	Hu	ICC/IF, IP, WB
		Rad50 [13B3] antibody	Ms mAb	Hu	ICC/IF, IP, WB
GTX300009_DSB Damage Recognition Sampler Kit – Response Protein					
		ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
		ATM phospho S1981 [EP1890Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
		Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
		TIP60 antibody	Rb pAb	Hu	ICC/IF, WB

Sampler Kits

Cat. No. _Product Name

Content	Host & Clonality	Reactivity	Application
GTX300011_DSB Damage Recognition Sampler Kit – Signal Amplification			
ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
ATM phospho S1981 [EP1890Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
BRCA1 [8F7] antibody	Rb pAb	Hu	IHC-P, IP, WB
Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
TP53BP1 antibody	Rb pAb	Hu	ICC/IF, WB
GTX300015_Fanconi Anaemia Pathway Sampler Kit			
BRCA2 [5F6] antibody	Ms mAb	Hu	IHC-Fr, WB
FANCA antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
FANCC antibody	Rb pAb	Hu, Ms	ICC/IF, WB
FANCD2 antibody	Rb pAb	Hu	IHC-P, WB
FANCG antibody	Rb pAb	Hu, Ms	ICC/IF, WB
FANCI antibody	Rb pAb	Hu	WB
FANCL antibody	Rb pAb	Hu	WB
GTX300012_RPA Family Sampler Kit			
RPA14 antibody	Rb pAb	Hu	IHC-P, WB
RPA32 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
RPA70 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX300013_Rad51 Paralog Sampler Kit			
Rad51B antibody	Rb pAb	Hu	WB
Rad51C antibody	Rb pAb	Hu, Ms	WB
XRCC2 antibody	Rb pAb	Hu	WB
XRCC3 antibody	Rb pAb	Hu	ICC/IF, WB
GTX300005_ATM Signaling Pathway Sampler Kit-1			
ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
ATR [2B5] antibody	Ms mAb	Hu	ICC/IF, IP, WB
CHK1 [6F5] antibody	Ms mAb	Hu	WB
CHK1 phospho S317 antibody	Rb pAb	Hu	ICC/IF, WB
CHK1 phospho S345 antibody	Rb pAb	Hu	WB
CHK2 [8F12] antibody	Ms mAb	Hu	WB
GTX300006_ATM Signaling Pathway Sampler Kit-2			
ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
c-Abl antibody	Rb pAb	-	ELISA-Ag
c-Abl-phospho-Y245 antibody	Rb pAb	-	ELISA-Ag
c-Jun antibody	Rb pAb	Hu	WB
JNK1 antibody	Rb pAb	-	ELISA-Ag
p73 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
Rad51 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC, WB
RPA32 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB

Cat. No. _Product Name

Content	Host & Clonality	Reactivity	Application
GTX300007_ATM Signaling Pathway Sampler Kit-3			
ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
ATR [2B5] antibody	Ms mAb	Hu	IF, IP, WB
BRCA1 [8F7] antibody	Ms mAb	Hu	IHC-P, IP, WB
CHK1 [6F5] antibody	Ms mAb	Hu	WB
CHK1 phospho S317 antibody	Rb pAb	Hu	ICC/IF, WB
CHK2 [8F12] antibody	Ms mAb	Hu	WB
CtIP antibody	Rb pAb	Hu	WB
MDM2 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
p53 antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX300008_ATM Signaling Pathway Sampler Kit-4			
14-3-3 σ antibody	Rb pAb	Hu	ICC/IF, WB
ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
ATR [2B5] antibody	Ms mAb	Hu	IF, IP, WB
GADD 45 γ antibody	Rb pAb	Hu	WB
MDM2 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
p53 antibody	Rb pAb	Hu	ICC/IF, IHC, WB

**Special
Price**

Buy Sampler Kit, Get Secondary Antibody Pair !

GTX213110-01

Goat Anti Rabbit IgG(HRP)
25 ul

GTX213111-01

Goat Anti Mouse IgG(HRP)
25 ul

GeneTex is pleased to offer you a pair of secondary antibodies when purchasing our DNA repair sampler kit.

Direct Reversal

Direct Reversal is the simplest DNA repair pathway. Highly mutagenic alkylation damage can be chemically reversed by specific enzymes including MGMT (O6-Methylguanine-DNA-ethyltransferase) and AlkB.

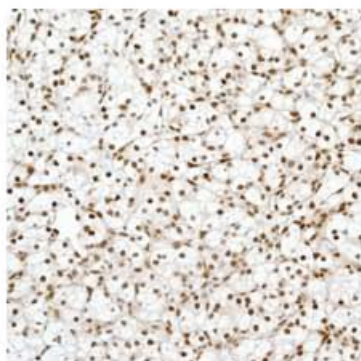
MGMT & AlkB

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX110551	MGMT antibody	Rb pAb	Hu	WB
GTX23144	MGMT [MT3.1] antibody	Ms mAb	Hu	FACS, IHC-P, WB
GTX62571	MGMT [EPR4397] antibody	Rb mAb	Hu	IHC, WB
GTX62565	MGMT [EPR4398] antibody	Rb mAb	Hu	IP, WB
GTX115145	AlkB antibody	Rb pAb	Hu	WB

Selected Application References

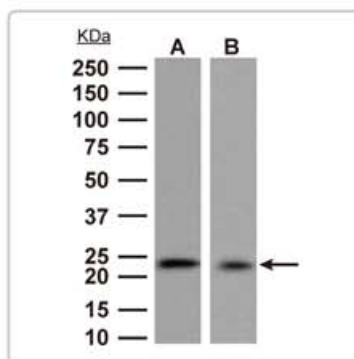
MGMT [MT 23.2] antibody (GTX27045)

Mojas, N. et al. (2007) Genes & Dev. 21: 3342-3355.



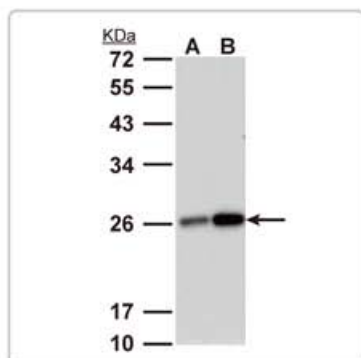
MGMT [EPR4397] antibody (GTX62571):

IHC analysis on paraffin-embedded human clear cell carcinoma tissue.



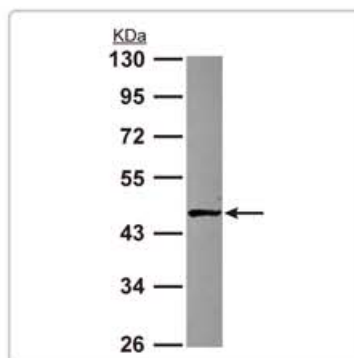
MGMT [EPR4398] antibody (GTX62565):

WB analysis on whole cell lysate. A) MCF-7; B) Jurkat.



MGMT antibody (GTX110551):

WB analysis on whole cell lysate. A) 293T; B) A431.



AlkB antibody (GTX115145):

WB analysis on NT2D1 whole cell lysate.

New

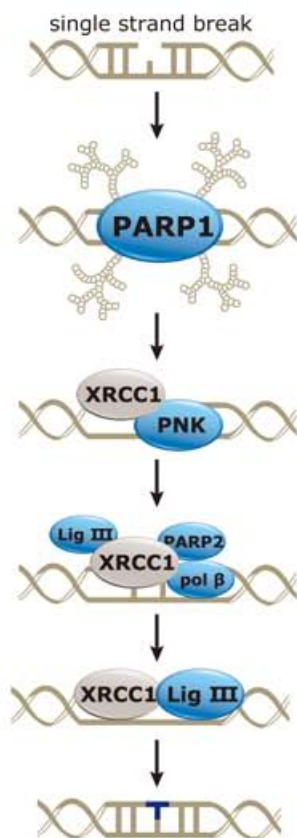
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GeneTex has over ten thousand of experience producing recombinant proteins. With our robust in vitro protein expression and purification technologies, GeneTex offers the highest quality recombinant proteins developed with extensive in-house research and validation. Please visit www.genetex.com/protein for more information !

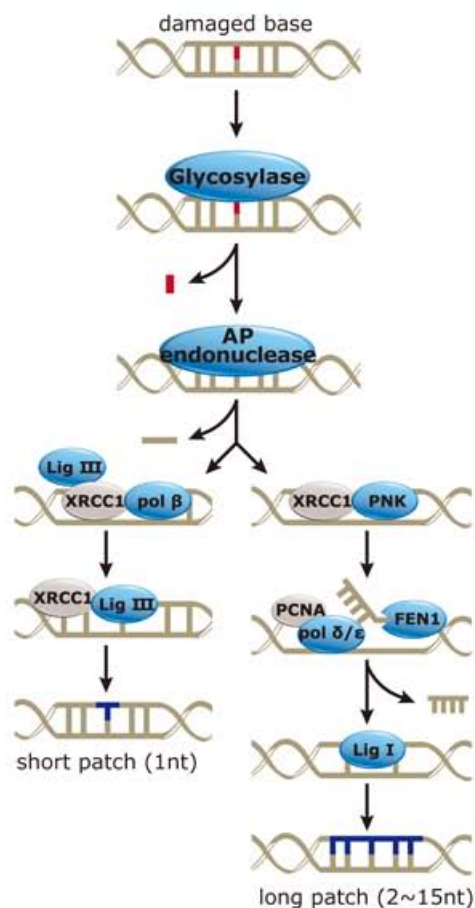
Base Excision Repair (BER) & Single Strand Break Repair (SSBR)

DNA single strand breaks (SSB) are one the most common forms of DNA damage present in a cell. SSB may arise directly from damage caused by reactive oxygen species (ROS) or indirectly through enzymatic cleavage during DNA base excision repair (BER) [Beckman, K.B. et al. (1997) J. Biol. Chem. 272: 19633-19636]. BER mainly repairs non-bulky lesions caused by oxidation, alkylation or deamination of bases. In human cells, both short- and long-patch BER pathways are utilized. BER is a vital process required for maintaining genomic integrity, as seen in BER-deficient animals that suffer from cancer, premature aging and metabolic defects [Mostoslavsky, R. et al. (2006) Cell. 124: 315-329.; Vartanian, V. et al. (2006) PNAS. 103: 1864-1869.].

Single Strand Break Repair (SSBR)



Base Excision Repair (BER)



Poly (ADP-ribose) polymerase

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX14459	PARP [10H] antibody	Ms mAb	All	ELISA, IHC-Fr, WB
GTX30288	PARP [C-2-10] antibody	Ms mAb	Hu, Ms, Mk, Rb, Rat	ELISA, ICC/IF, WB
GTX100573	PARP1 antibody	Rb pAb	Hu	ICC/IF, WB
GTX61030	PARP1 [Y17] antibody	Rb mAb	Hu	IP, WB
GTX61028	PARP1 [E102] antibody	Rb mAb	Hu, Rat	FACS, ICC/IF, IHC, WB
GTX70456	PARP2 antibody	Rb pAb	Hu	WB
GTX103147	PARP3 antibody	Rb pAb	Hu, Ms	IHC-P, WB

Glycosylase

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX103185	MUTYH antibody	Rb pAb	Hu	WB
GTX30107	NTH1 antibody	Rb pAb	Hu, Ms	WB
GTX101115	OGG1 antibody	Rb pAb	Hu	WB
GTX20204	OGG1 antibody	Rb pAb	Hu, Ms, Rat	IHC-Fr, IHC-P, WB
GTX15716	SMUG1 antibody	Gt pAb	Hu	ELISA, WB
GTX110473	TDG antibody	Rb pAb	Hu	WB
GTX103236	UNG antibody	Rb pAb	Hu	WB
GTX62564	UNG [EPR4371] antibody	Rb mAb	Hu, Ms, Rat	FACS, ICC/IF, IHC, WB

AP endonuclease

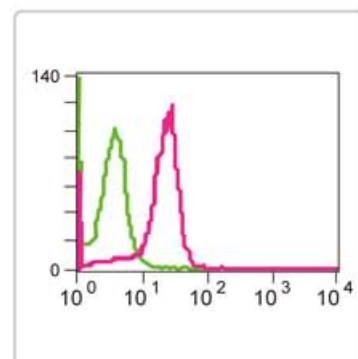
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX110558	APE1 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70131	APE1 [2104] antibody	Ms mAb	Hu	ELISA, IHC-P, WB
GTX62388	APE1 [EPR4022] antibody	Rb mAb	Hu, Ms, Rat	IHC, WB
GTX13691	APE2 antibody	Rb pAb	Hu	WB

Polynucleotide kinase phosphatase (PNK)

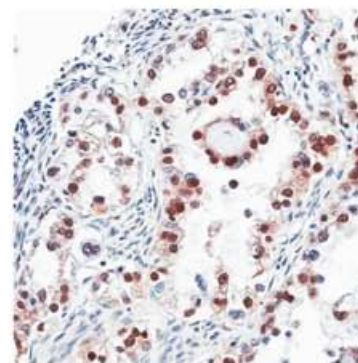
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX108569	PNK antibody	Rb pAb	Hu	IHC, WB
GTX107488	PNK antibody	Rb pAb	Hu	WB
GTX23817	PNK antibody	Gt pAb	Hu	WB

DNA polymerase

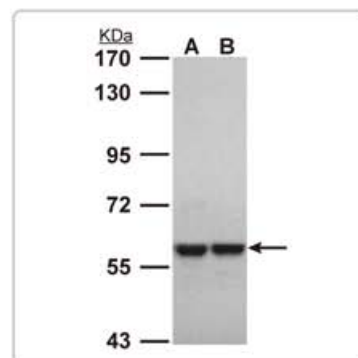
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX21831	DNA pol β [61] antibody	Ms mAb	Hu	IHC-P, WB
GTX23181	DNA pol β [18S] antibody	Ms mAb	Hu, Ms, Cow, Hm, Rat, Xi	IP, WB
GTX102888	DNA pol δ antibody	Rb pAb	Hu	ICC/IF, WB
GTX113805	DNA pol δ antibody	Rb pAb	Hu	ICC/IF, WB
GTX70152	DNA pol δ [607] antibody	Ms mAb	Hu	WB
GTX77606	DNA pol δ [6196] antibody	Ms mAb	Hu	WB
GTX116557	DNA pol ϵ antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX23163	DNA pol ϵ [93H3A] antibody	Ms mAb	Hu, Ms, Cow, Mk	IP, WB



PARP-1 (p116/p25) [E102] antibody (GTX61028):
FACS analysis of permeabilized Jurkat cells using anti-PARP-1 antibody (red) or a rabbit IgG as a negative control (green).



PARP3 antibody (GTX103147):
IHC analysis on formalin fixed paraffin- embedded OvCa xenograft.



MMUTYH antibody (GTX103185):
WB analysis on whole cell lysate. A) HeLa; B) Hep G2.

Base Excision Repair (BER) & Single Strand Break Repair (SSBR)

Replication factor C (RFC)

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX19259	RFC1 [1320] antibody	Ms mAb	Hu	WB
GTX105087	RFC2 antibody	Rb pAb	Hu	WB
GTX23616	RFC2 antibody	Gt pAb	Hu, Ms	WB
GTX103706	RFC3 antibody	Rb pAb	Hu	IHC, WB
GTX104052	RFC4 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX23854	RFC4 antibody	Rb pAb	Hu, Ms	IP, WB
GTX23619	RFC5 antibody	Gt pAb	Hu	ICC/IF, WB

Proliferating cell nuclear antigen (PCNA)

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100539	PCNA antibody	Rb pAb	Hu, Ms, Zfsh	ICC/IF, IHC, WB
GTX70298	PCNA [339] antibody	Ms mAb	Hu	ELISA, WB
GTX20029	PCNA [PC10] antibody	Ms mAb	Hu, Ms, Rat	FACS, IHC-Fr, IHC-P, IP, WB
GTX62270	PCNA [EPR3821] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GTX62305	PCNA [EPR3822] antibody	Rb mAb	Hu, Ms	FACS, IHC, WB

Replication protein A (RPA)

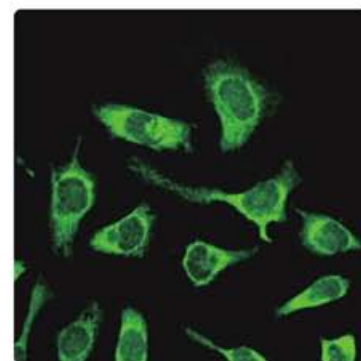
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100088	RPA14 antibody	Rb pAb	Hu	IHC-P, WB
GTX70240	RPA14 [14.2] antibody	Ms mAb	Hu, Ms	IP, WB
GTX113004	RPA32 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70258	RPA32 antibody	Rb pAb	Hu, Ms	WB
GTX70243	RPA32 [12F3.3] antibody	Ms mAb	Hu, Ms	IP, WB
GTX62037	RPA32 [EPR2877Y] antibody	Rb mAb	Hu, Ms, Rat	IHC, IP, WB
GTX62664	RPA32 phospho T21 [EPR2846(2)] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GTX108749	RPA70 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70261	RPA70 antibody	Ms mAb	Hu	WB
GTX62159	RPA70 [EPR3472] antibody	Rb mAb	Hu	FACS, ICC/IF, IHC, IP, WB

Flap endonuclease

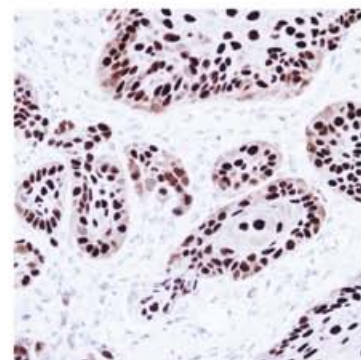
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX101777	FEN1 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70257	FEN1 antibody	Rb pAb	Hu, Ms	WB
GTX70185	FEN1 [4E7] antibody	Ms mAb	Hu	WB

DNA ligases & XRCC1

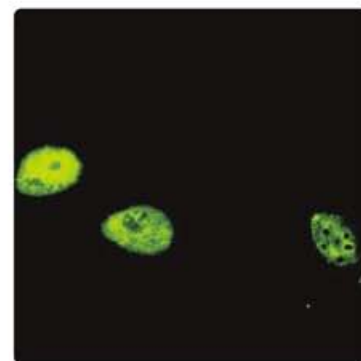
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX102936	DNA ligase I antibody	Rb pAb	Hu	WB
GTX70141	DNA ligase I [10H5] antibody	Ms mAb	Hu	IP, WB
GTX103197	DNA ligase III antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70143	DNA ligase III [1F3] antibody	Ms mAb	Hu	WB
GTX70145	DNA ligase III [4C11] antibody	Ms mAb	Hu	WB
GTX70147	DNA ligase III [5G9] antibody	Ms mAb	Hu	IHC-P, WB
GTX111712	XRCC1 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70262	XRCC1 antibody	Rb pAb	Hu	ELISA, IHC-Fr, IP, WB
GTX21838	XRCC1 [33-2-5] antibody	Ms mAb	Hu, Rat	ICC/IF, IHC-Fr, IHC-P, IP, WB



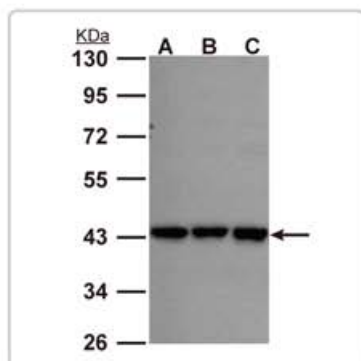
UNG [EPR4371] antibody (GTX62564):
ICC/IF analysis on HeLa cells.



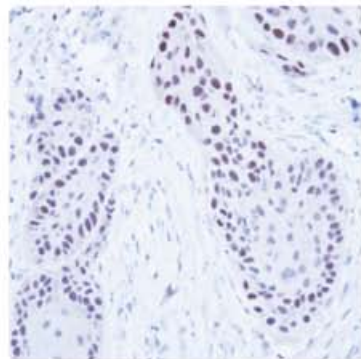
APE1 antibody (GTX110558):
IHC analysis on formalin fixed paraffin- embedded Cal27 xenograft.



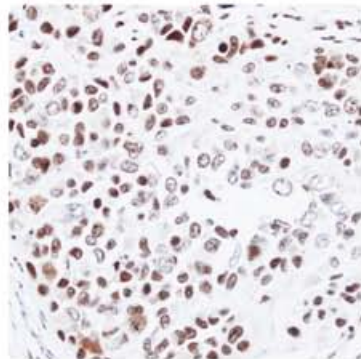
DNA pol δ antibody (GTX102888):
ICC/IF analysis on paraformaldehyde-fixed HeLa cells.



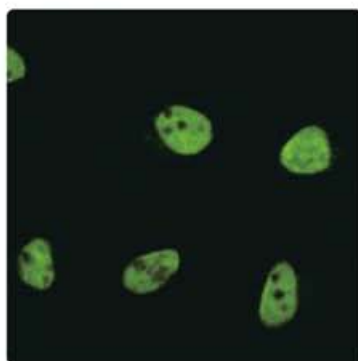
RFC2 antibody (GTX105087):
WB analysis on whole cell lysate. A) A431; B) H1299; C) HeLa.



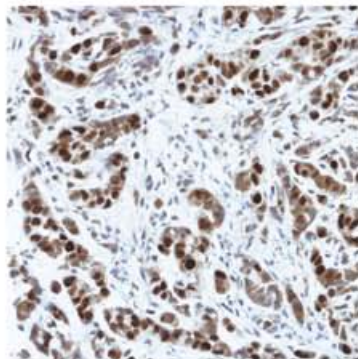
RCF4 antibody (GTX104052):
IHC analysis on formalin fixed paraffin-embedded MDAMB-468 xenograft.



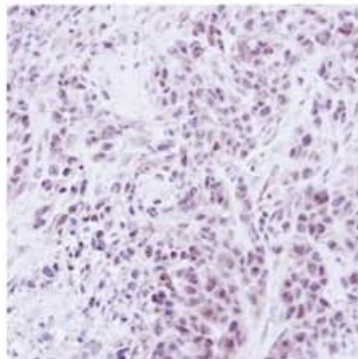
PCNA antibody (GTX100539):
IHC analysis on formalin fixed paraffin-embedded Cal27 xenograft.



RPA32 antibody (GTX113004):
ICC/IF analysis of paraformaldehyde-fixed HeLa cells.



FEN1 antibody (GTX101777):
IHC analysis on formalin fixed paraffin-embedded A549 xenograft.



XRCC1 antibody (GTX111712):
IHC analysis on formalin fixed paraffin-embedded SAS xenograft.

Selected Application References

PARP [10H] antibody (GTX14459)

Gottipati, P. et al. (2010) *Cancer Res.* 70: 5389-5398.

APE1 [2104] antibody (GTX70131)

Sak, S.C. et al. (2005) *Clin Cancer Res.* 11: 6205-6211.

DNA polymerase beta [18S] antibody (GTX23181)

Guo, Z. et al. (2009) *Nucleic Acids Res.* 37(10): 3431-3441.

RFC5 antibody (GTX23619)

Schad, A. et al. (2003) *J Histochem Cytochem.* 51: 751-760.

PCNA [PC10] antibody (GTX20029)

Hoegge, C. et al. (2002) *Nature.* 419: 135-141.

RPA14 [14.2] antibody (GTX70240)

Meetei, A.R. et al. (2003) *Mol. Cell. Biol.* 23: 3417-3426.
Sukhodolets, K.E. et al. (2003) *Mol. Cell. Biol.* 23: 493-509.

RPA32 [9H8] antibody (GTX22175)

Mohini, K.N. et al. (2010) *J. Virol.* [Epub]

RPA32 antibody (GTX70258)

Nichols, G.J. et al. (2009) *J. Virol.* 83: 5987-5998.

FEN1 [4E7] antibody (GTX70185)

Shibata, Y. et al. (2001) *J. Biol. Chem.* 277: 746-754.
Kedar, P.S. (2002) *J. Biol. Chem.* 277: 31115-31123.
Guo, Z. et al. (2008) *J Mol Biol.* 377(3): 679-690.
Liu, P. et al. (2008) *Mol Cell Biol.* 28(16): 4975-4987.
Guo, Z. et al. (2008) *Mol Cell Biol.* 28(13): 4310-4319.
Guo, Z. et al. (2009) *Nucleic Acids Res.* 37(10): 3431-3441.

DNA ligase I [10H5] antibody (GTX70141)

Wang, H. et al. (2005) *Cancer Res.* 65: 4020-4030.
Wang, W. et al. (2006) *J. Biol. Chem.* 281: 20865-20872.
Guo, Z. et al. (2009) *Nucleic Acids Res.* 37(10): 3431-3441.

DNA ligase III [1F3] antibody (GTX70143)

Leppard, J.B. (2003) *Mol. Cell. Biol.* 23: 5919-5927.
Wang, H. et al. (2005) *Cancer Res.* 65: 4020-4030.
Wang, M. et al. (2006) *Nucleic Acids Res.* 34(21): 6170-6182.
Dong, Z. et al. (2006) *Nucleic Acids Res.* 34: 5721-5729.
Guo, Z. et al. (2009) *Nucleic Acids Res.* 37(10): 3431-3441.

DNA ligase III [4C11] antibody (GTX70145)

DNA ligase III [6G9] antibody (GTX70147)

Wang, H. et al. (2005) *Cancer Res.* 65: 4020-4030.

XRCC1 antibody (GTX70262)

Whitehouse, C.J. et al. (2001) *Cell.* 104: 107-117.
Guo, Z. et al. (2009) *Nucleic Acids Res.* 37(10): 3431-3441.

Nucleotide Excision Repair (NER)

NER is the major repair pathway of bulky DNA adducts, which distort the normal DNA structure. These adducts are formed by UV radiation, chemicals or reactive oxygen species [Costa, R.M. et al. (2003) *Biochimie*. 85: 1083-1099]. This repair pathway is composed of two classes: global genome repair (GG-NER), wherein the damage is not in the actively transcribed strand, and transcription-coupled repair (TC-NER), which is repaired faster than damage in the non-transcribed strand. Many of the genes involved in NER were first identified through genetic complementation studies of the autosomal recessive genetic DNA repair disorder, xeroderma pigmentosum (XP). Seven XP complementation groups have been identified representing individual repair genes, XPA to XPG. Another rare genetic disorder with an underlying defect in the NER pathway is Cockayne syndrome (CS), which is associated with mutations in the ERCC6 and ERCC8 genes and is linked to a specific defect in transcription-coupled repair. The third genetic disease involving a defective NER response is trichothiodystrophy, wherein mutations in the ERCC2 gene were first identified [Takayama, K. et al. (1996) *Am J Hum Genet*. 58: 263-270] and has been recently linked to mutations in the XPD subunit of the TFIIH complex.

Damage-specific DNA binding protein (DDB)

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100130	DDB1 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC-P, WB
GTX100129	DDB1 antibody	Rb pAb	Hu, Ms	WB
GTX70307	DDB1 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX70302	DDB1 [1322] antibody	Ms mAb	Hu	ELISA, WB

Xeroderma pigmentosum group & ERCC1

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100112	XPA antibody	Rb pAb	Hu, Ms	ICC/IF, WB
GTX113035	XPA antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX20044	XPA [5A2] antibody	Ms mAb	Hu	ELISA, IA, ICC/IF, WB
GTX112923	XPB antibody	Rb pAb	Hu	ICC/IF, WB
GTX70311	XPB antibody	Rb pAb	Hu	WB
GTX102805	XPC antibody	Rb pAb	Hu	WB
GTX70294	XPC [3.26] antibody	Ms mAb	Hu	ICC/IF, IHC-P, WB
GTX105357	XPD antibody	Rb pAb	Hu	IHC, WB
GTX100144	XPD antibody	Rb pAb	Hu	WB
GTX23299	XPF [51] antibody	Ms mAb	Hu	WB
GTX17798	XPF [SPM228] antibody	Ms mAb	Hu	IHC-P, WB
GTX20046	XPG [8H7] antibody	Ms mAb	Hu	IP, WB
GTX112848	ERCC1 antibody	Rb pAb	Hu	WB
GTX22356	ERCC1 [8F1] antibody	Ms mAb	Hu, Rat	IHC-Fr, IHC-P, IP, WB
GTX72315	ERCC1 [3H11] antibody	Ms mAb	Hu	IHC, WB

Selected Application References
DDB1 antibody (GTX70307)

Sansam, C.L. et al. (2006) *Genes & Dev*. 20: 3117-3129.

XPC [3.26] antibody (GTX70294)

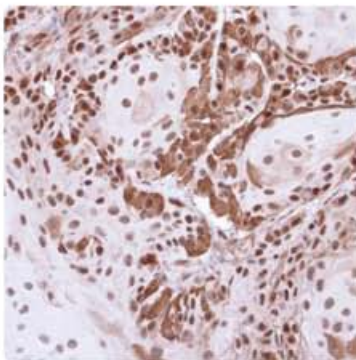
Adimoolam, S. et al. (2002) *PNAS*. 99: 12985-12990.
Ferguson, B.E. et al. (2005) *Cancer Res*. 65(19): 8723-8729.
Laposa, R.R. et al. (2007) *PNAS*. 104: 1389-1394.
Ferguson-Yates, B.E. et al. (2008) *Carcinogenesis*. 29: 70-75.
Rezvani, H.R. et al. (2010) *Nucleic Acids Res*. 38(3): 797-809.
de Feraudy, S. et al. (2010) *Am. J. Pathol*. 177: 555-562.

ERCC1 [8F1] antibody (GTX22356)

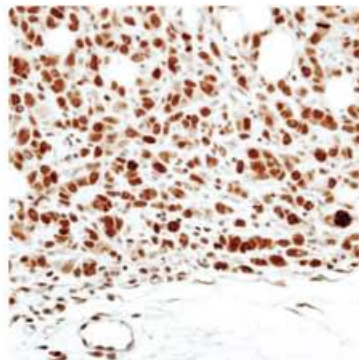
Park, S. et al. (2008) *ASCO Meeting Abstracts*. 26: 19065.
Koh, Y. et al. (2009) *Ann. Onc*. 20: 1414-1419.
Won, Y.W. et al. (2010) *Ann. Onc*. [Epub].

CSA, CSB, RNA polymerase II, and TF2H

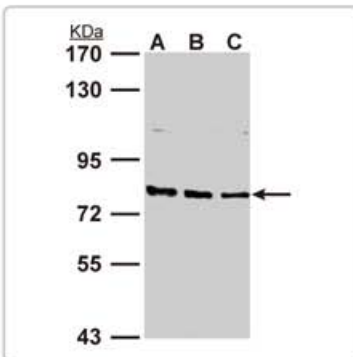
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100145	CSA/ERCC8 antibody	Rb pAb	Hu, Ms	ICC/IF, WB
GTX104589	CSB/ERCC6 antibody	Rb pAb	Hu	ICC/IF, WB
GTX44758	RNA pol II [H5] antibody	Ms mAb	Hu, Ms	ChIP, ICC/IF, IP, WB
GTX20817	RNA pol II [8WG16] antibody	Ms mAb	Hu, Ms, Cow, Xi	ChIP, WB
GTX77911	GTF2H1 antibody	Rb pAb	Hu	IHC-P, WB
GTX77809	GTF2H3 antibody	Rb pAb	Hu	WB



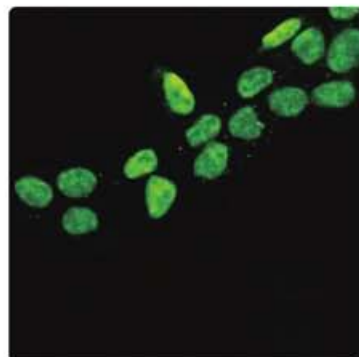
DDB1 antibody (GTX100130):
IHC analysis of formalin fixed paraffin-embedded Cal27 xenograft.



XPA antibody (GTX113035):
IHC analysis of formalin fixed paraffin-embedded PC9 xenograft.

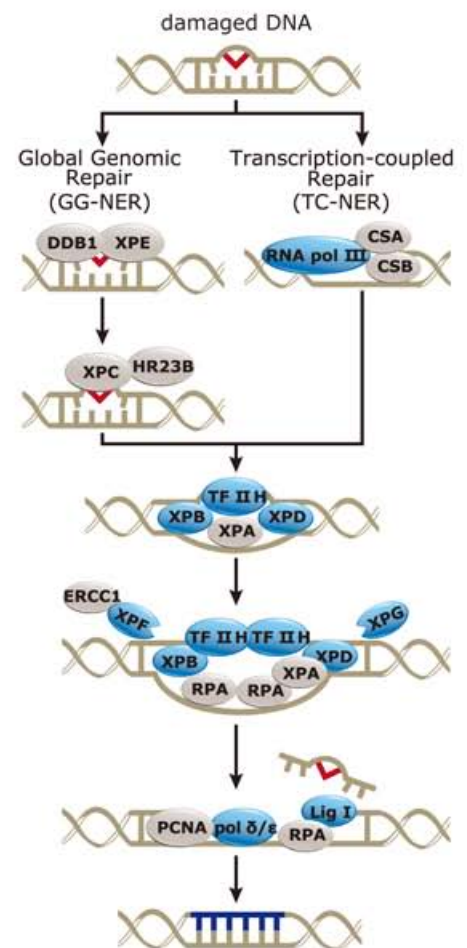


XPB antibody (GTX112923):
WB analysis on whole cell lysate. A) 293T; B) A431; C) H1299.



CSB antibody (GTX104589):
ICC/IF analysis of paraformaldehyde-fixed A431 cells.

Nucleotide Excision Repair (NER)



Mismatch Repair (MMR)

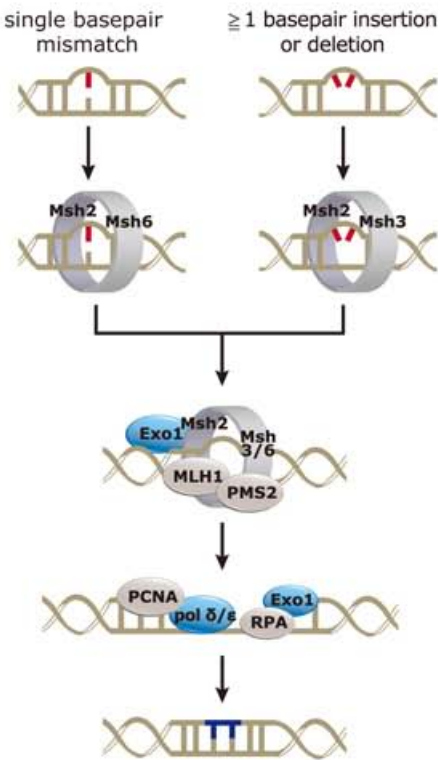
DNA mismatch repair was first studied in *E. coli*, wherein mismatch repair is directed by the transient absence of methylation of adenines at GATC sequences in newly synthesized DNA. The repair process is started by the binding of the protein MutS to mismatched base pairs. MutL is recruited to the complex and activates MutH, which then cuts the unmethylated strand at GATC sequences. Excision is completed by UvrD and an exonuclease followed by resynthesis and ligation. In eukaryotes, MutS homologs include MutSa (comprised of MSH2/MSH6) and MutSβ (MSH2/MSH3), while MutL homologs include MLH1, PMS1 and PMS2 [Drummond et al. (1995) Science. 268: 1909-1912; Palombo et al. (1995) Science, 268: 1912-1914; Genschel et al. (1998). JBC, 273: 19895-19901). Mutations to the MSH2 and MLH1 genes are frequently associated with HNPCC (hereditary non-polyposis colorectal cancer) while only occasionally associated with defects in MSH6, PMS1 and PMS2.

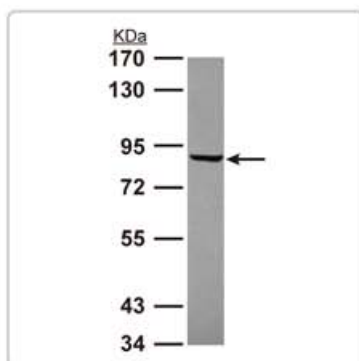
MutS homolog				
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX101175	MSH2 antibody	Rb pAb	Hu	WB
GTX16833	MSH2 antibody	Rb pAb	Hu, Ms	IHC-F, IHC-Fr, IHC-P, IP, WB
GTX30741	MSH2 [2MSH01] antibody	Ms mAb	Hu	IHC-P
GTX62385	MSH2 [EPR3943] antibody	Rb mAb	Hu	FACS, ICC/IF, IHC, WB
GTX103228	MSH3 antibody	Rb pAb	Hu	WB
GTX13786	MSH4 antibody	Gt pAb	Hu	ELISA
GTX13819	MSH5 antibody	Gt pAb	Hu	ELISA
GTX111661	MSH6 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX73803	MSH6 [44] antibody	Ms mAb	Hu	IHC-P, WB
GTX62383	MSH6 [EPR3945] antibody	Rb mAb	Hu, Ms	ICC/IF, IHC, IP, WB

MutL homolog				
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX101160	MLH1 antibody	Rb pAb	Hu	ICC/IF, WB
GTX16878	MLH1 [Clone 14] antibody	Ms mAb	Hu	IHC-P, WB
GTX62330	MLH1 [EPR3894] antibody	Rb mAb	Hu, Ms, Rat	FACS, IHC, IP, WB
GTX62630	MLH1 [EPR3893] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, WB
GTX118151	MLH3 antibody	Rb pAb	Hu	WB
GTX23818	PMS1 antibody	Gt pAb	Hu	ELISA
GTX113804	PMS2 antibody	Rb pAb	Hu	WB
GTX30731	PMS2 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX62395	PMS2 [EPR3947] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX13900	PMS2 [163C1251] antibody	Ms mAb	Hu	WB

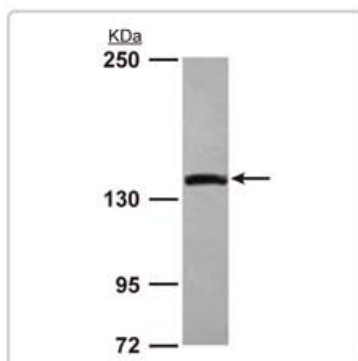
DNA polymerases
see page 07
PCNA, RFC, RPA
see page 08
DNA Ligase I
see page 08

Mismatch Repair (MMR)

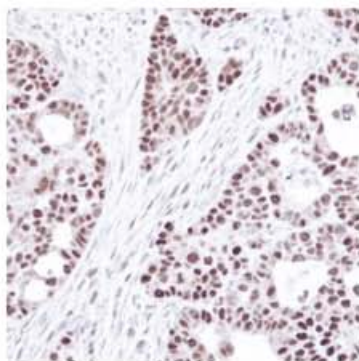




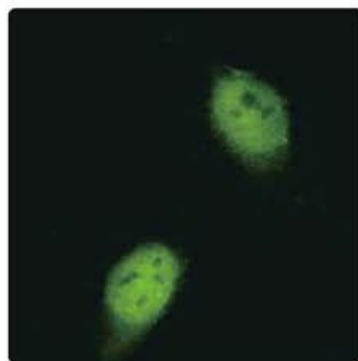
MSH2 antibody (GTX101175):
WB analysis of A431 whole cell lysate.



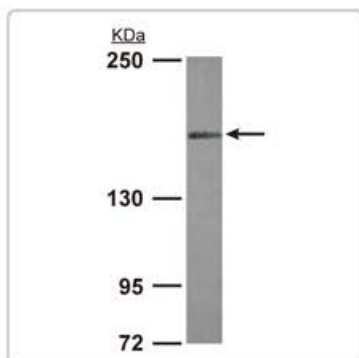
MSH3 antibody (GTX103228):
WB analysis on HCT116 whole cell lysate.



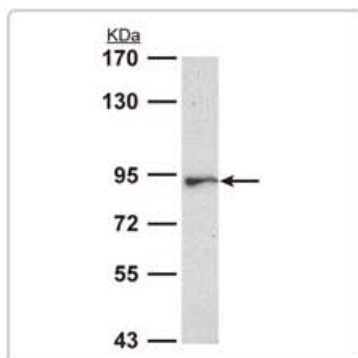
MSH6 antibody (GTX111661):
IHC analysis on formalin fixed paraffin-embedded NCIN87 xenograft.



MLH1 antibody (GTX101160):
ICC/IF analysis on paraformaldehyde-fixed HeLa cells.



MLH3 antibody (GTX118151):
WB analysis of HCT116 whole cell lysate.



PMS2 antibody (GTX113804):
WB analysis on Hep G2 whole cell lysate.

Selected Application References MSH6 antibody (GTX111661)

Hsu, T. et al. (2010) Chemosphere. [Epub ahead of print]

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Double Strand Break (DSB)

DNA double strand break (DSB) is one of the most toxic and mutagenic DNA lesion in the cell. The mammalian cellular response to DSBs involves groups of proteins categorized as sensors, signal transducers and effectors of DNA damage repair. DSBs can be repaired either by homologous recombination (HR) or by non-homologous end joining (NHEJ).

Non-Homologous End Joining (NHEJ)

NHEJ is an efficient DSB repair pathway in eukaryotes and can be used throughout the cell cycle. NHEJ was initially described as the ligation repair of two ends but new findings suggest it is more complicated and is regulated in the response to DNA damage (Goodarzi,A.A. et al. 2008). NHEJ is involved in fast but inaccurate repair of a two-ended DSB, which may result in deletions and insertions of foreign DNA. Also, there are alternative end-joining pathways that use micro-homology mediated (MMEJ) [Yun,M.H. et al. (2009) Nature. 459: 460-463.] or a redundant backup pathway present in NHEJ-defective cells [Wang,H. et al. (2005) Cancer Res. 65: 4020-4030.].

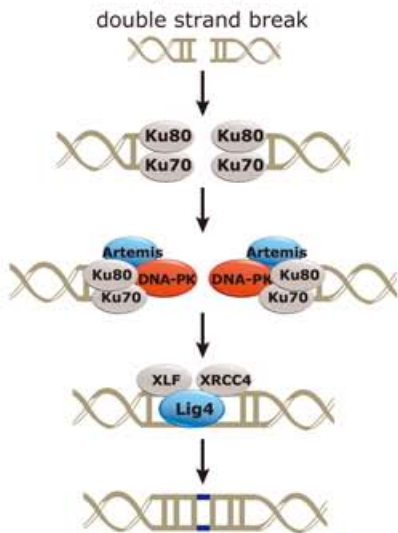
Ku70 & Ku80

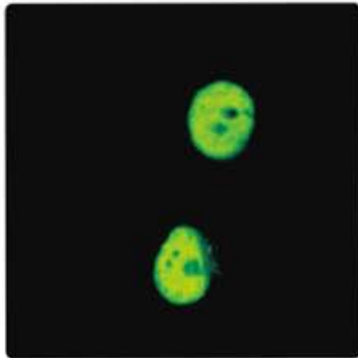
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX101820	Ku70 antibody	Rb pAb	Hu	ICC/IF, WB
GTX101848	Ku70 antibody	Rb pAb	Hu	IHC, WB
GTX70271	Ku70 [1.5] antibody	Ms mAb	Hu	WB
GTX62372	Ku70 [EPR4027]	Rb mAb	Hu	FACS, ICC/IF, IHC, IP, WB
GTX109935	Ku80 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX70276	Ku80 [149.8] antibody	Ms mAb	Hu	WB
GTX62149	Ku80 [EPR3467]	Rb mAb	Hu	FACS, ICC/IF, IHC, WB
GTX62189	Ku80 [EPR3468]	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX23108	Ku70 + Ku80 [162] antibody	Ms mAb	Hu, Ms, Mk, Rat, XI	FACS, ICC/IF, IHC-P, IP

DNA-PK & Artemis

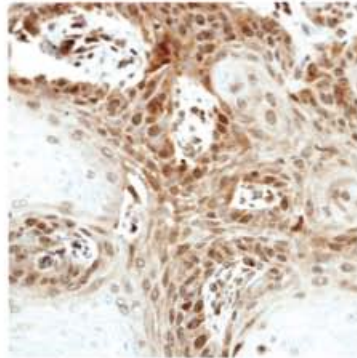
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX109673	DNA-PKcs antibody	Rb pAb	Hu	WB
GTX70149	DNA-PKcs antibody	Rb pAb	Hu, Ms, Rat, Other	IP, WB
GTX61212	DNA-PKcs [Y393] antibody	Rb mAb	Hu	WB, IHC, ICC/IF
GTX21832	DNA-PKcs [18-2] antibody	Ms mAb	Hu, Rat	ICC/IF, IHC-P, IP, WB
GTX100128	Artemis antibody	Rb pAb	Hu	IHC, WB
GTX70432	Artemis antibody	Rb pAb	Hu	ELISA, WB

Non-homologous End-joining (NHEJ)

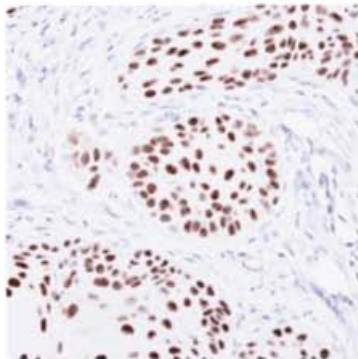




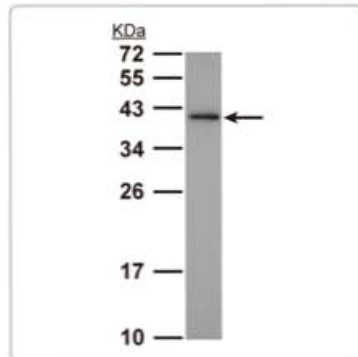
Ku70 antibody (GTX101820):
ICC/IF analysis of paraformaldehyde-fixed HeLa cells.



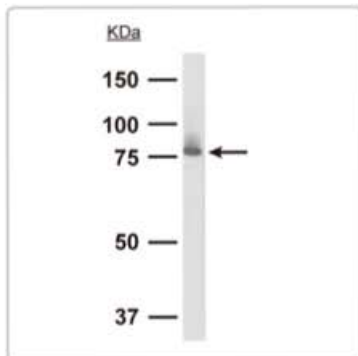
Artemis antibody (GTX100128):
IHC analysis of formalin fixed paraffin-embedded Cal27 xenograft.



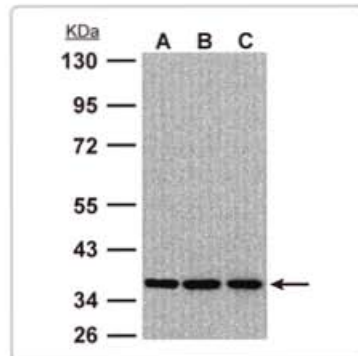
XRCC4 antibody (GTX100094):
IHC analysis on formalin fixed paraffin-embedded A549 xenograft.



XLF antibody (GTX100092):
WB analysis on Hep G2 whole cell lysate.



Ku80 [149.8] antibody (GTX70276):
WB analysis on HeLa whole cell lysate.



XRCC4 antibody (GTX109632):
WB analysis whole cell lysate. A) 293T; B) A431; C) HeLa.

Selected Application References
DNA-PK antibody (GTX70149)

Diggle, C.P. et al. (2003) *Nucleic Acids Res.* 31:e83.

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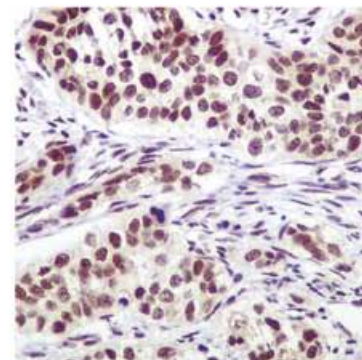
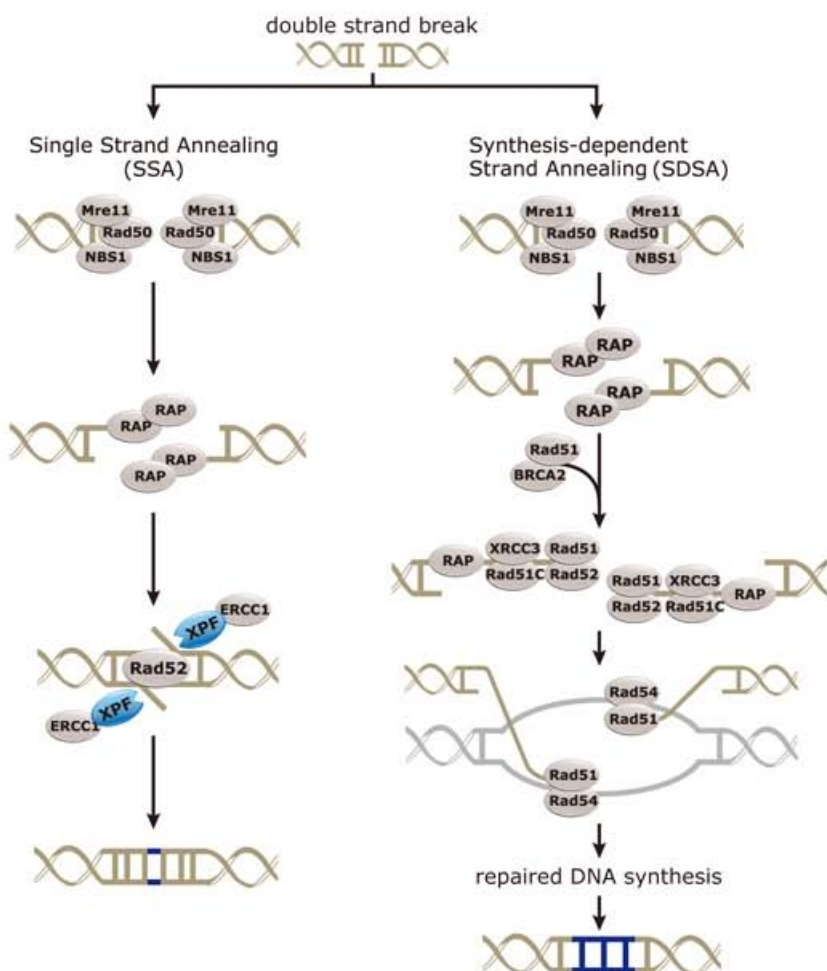
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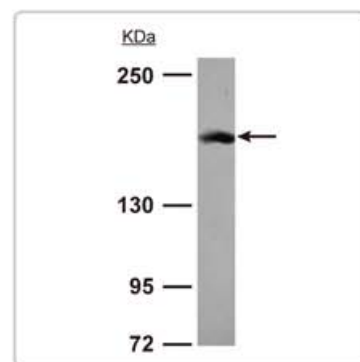
Homologous Recombination (HR)

HR is an error-free repair process which preferentially uses the sister chromatid as a template [Richardson, C. et al. (2000) *Nature*. 405: 697-700.]. It provides an accurate repair mechanism for DSBs by finding homologous sequences and re-synthesizing the damaged or missing DNA. HR is only active in the S and G2 phases of the cell cycle when DNA replication has been completed and the sister chromatid is available to serve as a template for repair [Rothkamm, K. et al. (2003) *Mol. Cell. Biol.* 23: 5706-5715.].

Homologous Recombination (HR)



Mre11 [EPR3471] antibody (GTX62686):
IHC analysis of paraffin-embedded human cervical carcinoma tissue.



Rad50 antibody (GTX119731):
WB analysis on NT2D1 whole cell lysate.

Mre11-Nbs1-Rad50 complex

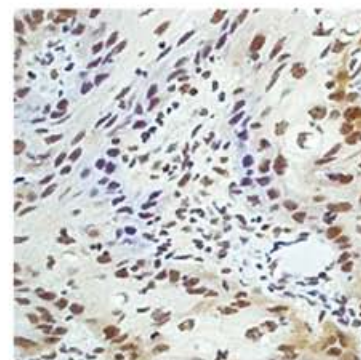
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX118741	Mre11 antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX70212	Mre11 [12D7] antibody	Ms mAb	Hu	ELISA, ICC/IF, IHC-P, IP, WB
GTX62686	Mre11 [EPR3471] antibody	Rb mAb	Hu, Ms, Rat	IHC, WB
GTX70222	NBS1 [1C3] antibody	Ms mAb	Hu	IP, WB
GTX70224	NBS1 [1D7] antibody	Ms mAb	Hu	IP, WB
GTX61150	NBS1 [Y112]	Rb mAb	Hu, Ms	ICC/IF, IHC, IP, WB
GTX61779	NBS1 phospho S343 [EP178]	Rb mAb	Hu	ICC/IF, IP, WB
GTX61983	NBS1 phospho S432 [EPR2470Y]	Rb mAb	Hu	ICC/IF, IHC, WB
GTX119731	Rad50 antibody	Rb pAb	Hu	WB
GTX23622	Rad50 antibody	Rb pAb	Hu, Ms, Rat	IP, WB
GTX70228	Rad50 [13B3] antibody	Ms mAb	Hu	ICC/IF, IP, WB

BRCA1 & BRCA2

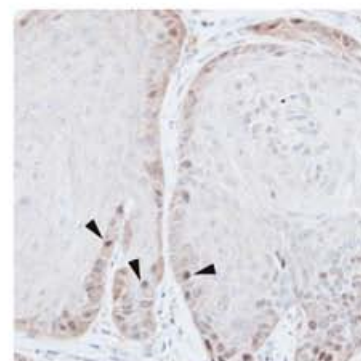
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX22956	BRCA1 antibody	Rb pAb	Hu	ICC/IF, IP, WB
GTX70111	BRCA1 [17F8] antibody	Ms mAb	Hu	ELISA, ICC/IF, IHC-P, IP, WB
GTX70113	BRCA1 [8F7] antibody	Ms mAb	Hu	IHC-P, IP, WB
GTX70115	BRCA1 [6B4] antibody	Ms mAb	Hu, Ms	IP, WB
GTX70117	BRCA1 [9F12] antibody	Ms mAb	Hu	IP, WB
GTX23542	BRCA1 phospho S1189 antibody	Rb pAb	Hu	WB
GTX23544	BRCA1 phospho S1280 antibody	Rb pAb	Hu	WB
GTX23545	BRCA1 phospho S1457 antibody	Rb pAb	Hu	WB
GTX23614	BRCA1 phospho S1466 antibody	Rb pAb	Hu	WB
GTX70119	BRCA2 [9D3] antibody	Ms mAb	Hu	IP, WB
GTX70121	BRCA2 [3E6] antibody	Ms mAb	Hu	IP, WB
GTX70123	BRCA2 [5F6] antibody	Ms mAb	Hu	IHC-Fr, WB

Rad51 & Rad51 paralogs

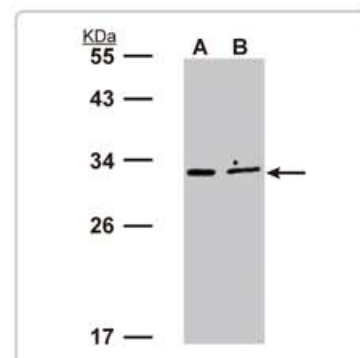
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100469	Rad51 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC, WB
GTX70230	Rad51 [14B4] antibody	Ms mAb	Hu	ICC/IF, IP, WB
GTX70296	Rad51 [13E4] antibody	Ms mAb	Hu	WB
GTX62595	Rad51 [EPR4031]	Rb mAb	Hu, Ms, Rat	FACS, IP, WB
GTX106045	Rad51B antibody	Rb pAb	Hu	WB
GTX40242	Rad51B [1H3/13] antibody	Ms mAb	Hu	WB
GTX11050	Rad51B [1E11/6] antibody	Ms mAb	Hu, Hm	WB
GTX23669	Rad51C antibody	Gt pAb	Hu	WB
GTX100108	Rad51C antibody	Rb pAb	Hu, Ms	WB
GTX40243	Rad51D [5B3/6] antibody	Ms mAb	Hu	WB
GTX11051	Rad51D [5A8/4] antibody	Ms mAb	Hu, Hm	WB
GTX100113	XRCC2 antibody	Rb pAb	Hu, Ms	WB
GTX105069	XRCC2 antibody	Rb pAb	Hu	WB
GTX11052	XRCC2 [7B7/3] antibody	Ms mAb	Hu	WB
GTX100115	XRCC3 antibody	Rb pAb	Hu	ICC/IF, WB
GTX40254	XRCC3 [10F1/6] antibody	Ms mAb	Hu	WB

**NBS1 [Y112] antibody (GTX61150):**

IHC analysis of paraffin-embedded human skin carcinoma.

**Rad51 antibody (GTX100469):**

IHC analysis on formalin fixed paraffin-embedded Cal27 xenograft.

**XRCC2 antibody (GTX105069):**

WB analysis on whole cell lysate. A) MOLT4; B) Raji.

Homologous Recombination (HR)

Rad52 & Rad54

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX12048	Rad52 antibody	Rb pAb	Hu, Ms, Rat	IHC, WB
GTX70301	Rad52 [5H9] antibody	Ms mAb	Hu	WB
GTX101310	Rad54 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC, WB
GTX70305	Rad54 [38.4] antibody	Ms mAb	Hu	ELISA, WB
GTX70306	Rad54 [60.1] antibody	Ms mAb	Hu	ELISA, WB
GTX103291	Rad54B antibody	Rb pAb	Hu	ICC/IF, WB
GTX113950	Rad54B antibody	Rb pAb	Hu	WB
GTX100624	Rad54L antibody	Rb pAb	Hu	WB

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Mre11 [12D7] antibody (GTX70212)

Rad50 [13B3] antibody (GTX70228)

NBS1 [1C3] antibody (GTX70222)

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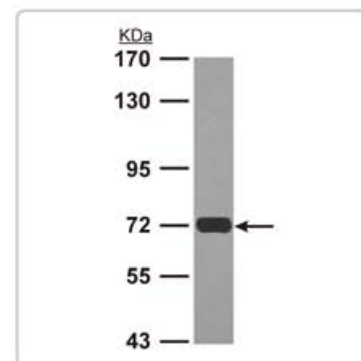
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WB analysis on Jurkat whole cell lysate.

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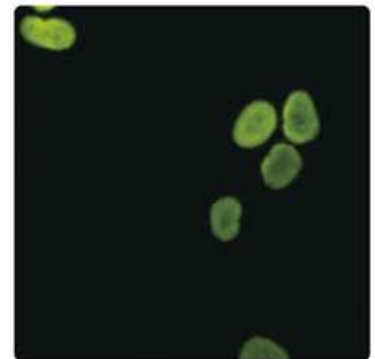
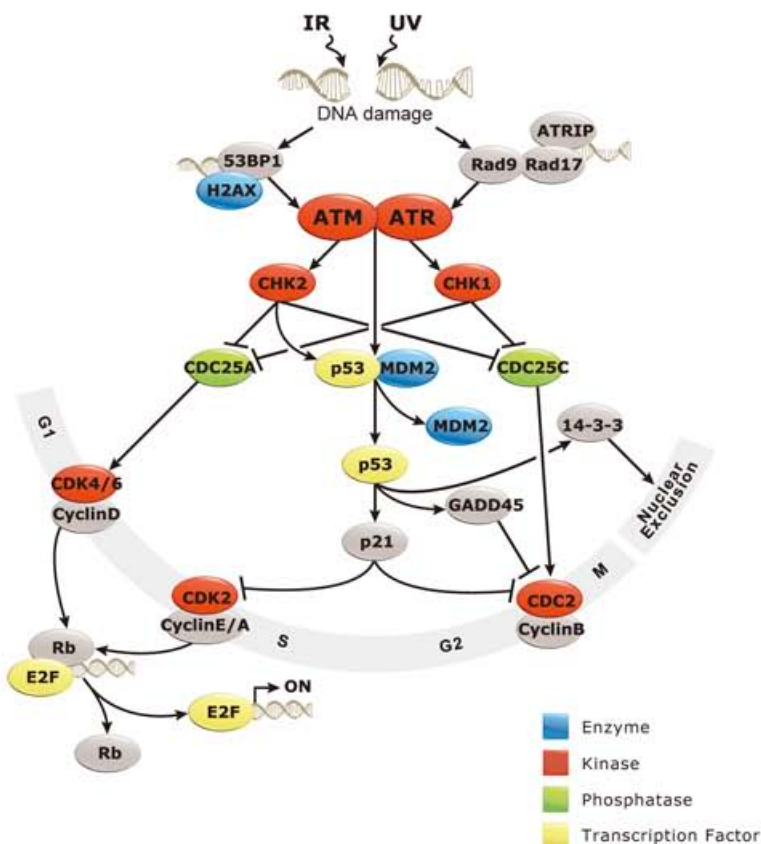
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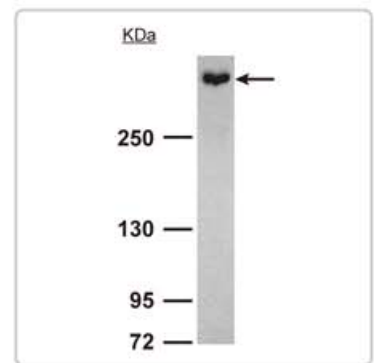
DNA Damage Sensors & Checkpoint Signaling

It is vital for cells to effectively repair DNA damage and to coordinate DNA repair with cell cycle progression. The cellular response to DNA damage includes activation of checkpoint proteins, which delay or arrest cell cycle progression to facilitate DNA repair and to prevent the transmission of potentially mutagenic damaged DNA. Ionizing radiation and UV light activate damage sensor proteins ATM (Ataxia Telangiectasia Mutated) and ATR (ATM and Rad3 related), respectively. ATM is essential in coordinating the cellular response to DNA damage. Mutations in ATM cause the disease ataxia-telangiectasia (A-T) in humans. ATR functions in response to cellular stress during replication and in the presence of various forms of DNA damage. The downstream targets of the ATM/ATR Chk1 and Chk2 are known to play important roles in both the G1/S and S/G2 DNA damage checkpoints.

DNA Damage Sensors & Checkpoint Signaling



Histone H2A.X antibody (GTX108272):
ICC/IF analysis on paraformaldehyde-fixed A549 cells.



53BP1 antibody (GTX102595):
WB analysis on Raji whole cell lysate.

DNA Damage Sensors & Checkpoint Signaling

H2AX, 53BP1, and MDC1

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX108272	Histone H2A.X antibody	Rb pAb	Hu	ICC/IF, WB
GTX61796	Histone H2A.X phospho S139 [EP854(2)Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, WB
GTX102595	53BP1 antibody	Rb pAb	Hu	ICC/IF, WB
GTX11170	MDC1 antibody	Rb pAb	Hu	IP, WB
GTX10948	MDC1 antibody	Sh pAb	Hu	ICC/IF, WB

ATRIP, Rad9, and Rad17

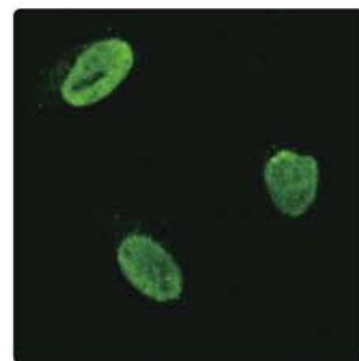
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GTX104654	ATRIP antibody	Rb pAb	Hu	IHC-P, WB
GTX100078	Rad9 antibody	Rb pAb	Hu	ICC/IF, WB
GTX100083	Rad17 antibody	Rb pAb	Hu, Ms	WB
GTX30134	Rad17 antibody	Rb pAb	Hu	ICC/IF, WB
GTX61991	Rad17 phospho S645 [EP1519Y] antibody	Rb mAb	Hu	WB
GTX62125	Rad17 phospho S656 [EPR3145] antibody	Rb mAb	Hu	ICC/IF, IHC, WB

ATM and ATR

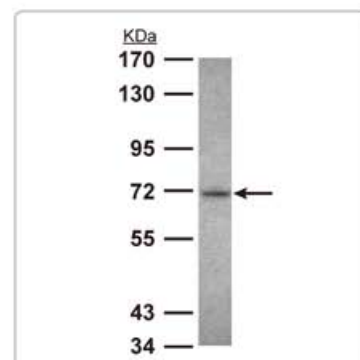
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GTX70103	ATM [2C1] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, IP, WB
GTX70105	ATM [3E8] antibody	Ms mAb	Hu, Ms, Mk, Rat	IP, WB
GTX70107	ATM [5C2] antibody	Ms mAb	Hu, Ms, Mk, Rat	ICC/IF, WB
GTX61188	ATM [Y170] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX61739	ATM phospho S1981 [EP1890Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX116010	ATR antibody	Rb pAb	Hu	WB
GTX70109	ATR [2B5] antibody	Ms mAb	Hu	ICC/IF, IP, WB

Checkpoint proteins

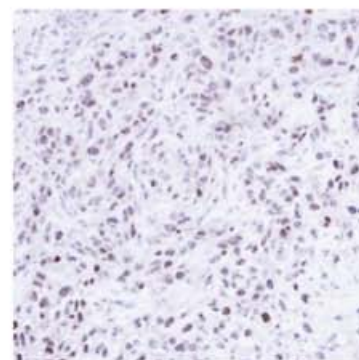
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GTX100070	CHK1 antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX70303	CHK1 [6F5] antibody	Ms mAb	Hu	WB
GTX61091	CHK1 [E250] antibody	Rb mAb	Hu, Ms	ICC/IF, IP, WB
GTX61366	CHK1 [EP691Y] antibody	Rb mAb	Hu	FC, ICC/IF, IHC, WB
GTX62150	CHK1 phospho S296 [EPR915] antibody	Rb mAb	Hu	ICC/IF, WB
GTX100068	CHK1 phospho S317 antibody	Rb pAb	Hu	ICC/IF, WB
GTX100065	CHK1 phospho S345 antibody	Rb pAb	Hu	WB
GTX113055	CHK2 antibody	Rb pAb	Hu	WB
GTX70295	CHK2 [8F12] antibody	Ms mAb	Hu	WB
GTX61881	CHK2 phospho S33/35 [EPR916(2)Y] antibody	Rb mAb	Hu	ICC/IF, WB
GTX61053	CHK2 phospho T68 [E126] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB



Rad9 antibody (GTX100078):
ICC/IF analysis of paraformaldehyde-fixed HeLa cells.



CHK2 antibody (GTX113055):
WB analysis on Jurkat whole cell lysate.



CDC25C antibody (GTX102810):
IHC analysis of paraffin-embedded SAS xenograft.

CDC25

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX102308	CDC25A antibody	Rb pAb	Hu	WB
GTX23171	CDC25A [DCS-120] antibody	Ms mAb	Hu, Rat	ICC/IF, IHC, IP, WB
GTX22358	CDC25B [DCS-162] antibody	Ms mAb	Hu	IHC-Fr, IHC-P, IP
GTX102810	CDC25C antibody	Rb pAb	Hu	IHC-P, WB
GTX10537	CDC25C [DCS-193] antibody	Ms mAb	Hu	WB
GTX61099	CDC25C [E302] antibody	Rb mAb	Hu, Rat	ICC/IF, IHC, IP, WB
GTX61074	CDC25C phospho S216 [E190] antibody	Rb mAb	Hu	ICC/IF, IP, WB

Cyclin-dependent kinases (CDKs) and p21

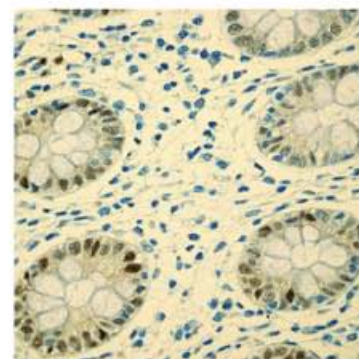
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX108120	CDK1 antibody	Rb pAb	Hu	WB
GTX20018	CDK2 [A17] antibody	Ms mAb	Hu, Ms, Rat, Xi	ELISA, ICC/IF, IHC-Fr, IHC-P, IP, WB
GTX61064	CDK2 [E161] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GTX22363	CDK2 [2B6] antibody	Ms mAb	Hu, Ms, Rat	IHC-Fr, IHC-P, WB
GTX61055	CDK2 (C-term) [E304] antibody	Rb mAb	Hu, Ms	ICC/IF, IP, WB
GTX61935	CDK2 phospho T14 [EP2234Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX61975	CDK2 phospho Y15 [EPR2233Y] antibody	Rb mAb	Hu, Ms	IP, WB
GTX26434	CDK1 + CDK2 [AN21.2] antibody	Ms mAb	Hu	ELISA, WB
GTX102993	CDK4 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC-P, WB
GTX112842	CDK4 antibody	Rb pAb	Hu	ICC/IF, WB
GTX26315	CDK4 [DCS-31] antibody	Ms mAb	Hu, Ms, Rat	ICC/IF, IP, WB
GTX61925	CDK4 [EPR2513Y] antibody	Rb mAb	Hu	FC, IP, WB
GTX103992	CDK6 antibody	Rb pAb	Hu	ICC/IF, WB
GTX75692	CDK6 [DCS 83.1] antibody	Ms mAb	Hu	IHC-Fr, IP, WB
GTX27903	p21 [WA-1] antibody	Ms mAb	Hu, Other	ELISA, WB
GTX62525	p21 [EPR3993] antibody	Rb mAb	Hu, Rat	IHC, IP, WB

Retinoblastoma (Rb)

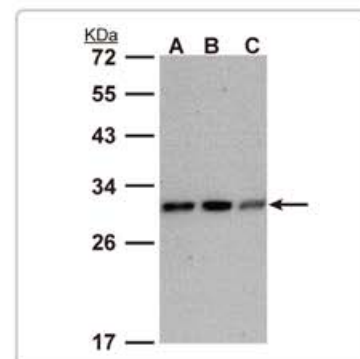
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GTX20024	Rb [Rb1] antibody	Ms mAb	Hu, Ms, Rat	IHC-Fr, IP, WB
GTX21116	Rb [1G5] antibody	Ms mAb	Hu	ELISA, IHC-Fr, IHC-P, IP, WB
GTX24788	Rb phospho S249 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX61807	Rb phospho T356 [EPR2153AY] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX61420	Rb phospho T373 [EP821Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX10921	Rb phospho S608 [51B7] antibody	Ms mAb	Hu, Ms	IHC-Fr, WB
GTX24777	Rb phospho S612 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX61071	Rb phospho S780 [E182] antibody	Rb mAb	Hu	ICC/IF, IP, WB
GTX24782	Rb phospho S807 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX24786	Rb phospho S811 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX24783	Rb phospho S807, S811 antibody	Rb pAb	Hu, Ms	WB
GTX24787	Rb phospho T821 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX61083	Rb phospho T821 [E231] antibody	Rb mAb	Hu	ICC/IF, IP, WB
GTX24779	Rb phospho T826 antibody	Rb pAb	Hu, Ms, Rat	WB



CDK6 antibody (GTX103992):
ICC/IF analysis of paraformaldehyde-fixed HeLa cells.



p21 [EPR3993] antibody (GTX62525):
IHC analysis on paraffin-embedded human colon tissue.



Cyclin D1 antibody (GTX112874):
WB analysis on whole cell lysate A) A431; B) H1299; C) HeLa.

DNA Damage Sensors & Checkpoint Signaling

Cyclins

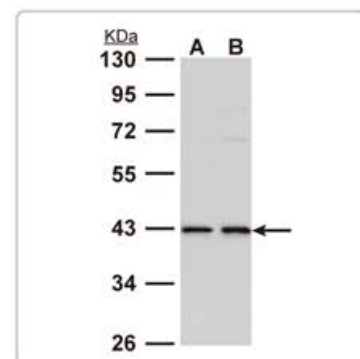
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GTX103042	Cyclin A antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB
GTX20038	Cyclin A [E23.1] antibody	Ms mAb	Hu, Ms, Cow, Rat	IHC-Fr, IP, WB
GTX61180	Cyclin A2 [Y193] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB
GTX100911	Cyclin B1 antibody	Rb pAb	Hu	WB
GTX72347	Cyclin B1 [V152] antibody	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB
GTX61139	Cyclin B1 [Y106] antibody	Rb mAb	Hu	FC, ICC/IF, IHC, IP, WB
GTX111118	Cyclin B2 antibody	Rb pAb	Hu	ICC/IF, WB
GTX112874	Cyclin D1 antibody	Rb pAb	Hu	WB
GTX26152	Cyclin D1 [CD1.1] antibody	Ms mAb	Hu, Rat	ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, IP, WB
GTX61845	Cyclin D1 [EPR2241] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GTX23085	Cyclin D2 [DCS-3.1] antibody	Ms mAb	Hu, Ms, Rat	FACS, ICC/IF, IP, WB
GTX101523	Cyclin D3 antibody	Rb pAb	Hu, Ms	WB
GTX61454	Cyclin D3 [EP463E] antibody	Rb mAb	Hu	FC, ICC/IF, WB
GTX103045	Cyclin E1 antibody	Rb pAb	Hu	WB
GTX61285	Cyclin E1 [EP435E] antibody	Rb mAb	Hu	FC, ICC/IF, IP, WB
GTX61059	Cyclin E2 [E142] antibody	Rb mAb	Hu, Ms, Rat	FC, ICC/IF, IHC, WB
GTX61393	Cyclin E2 [EP454Y] antibody	Rb mAb	Hu	ICC/IF, IHC, IP, WB

E2F

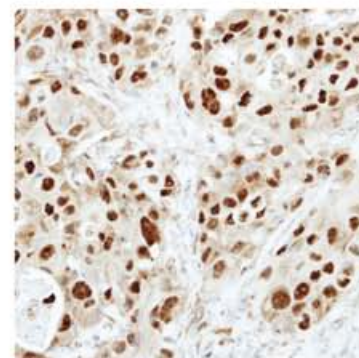
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX112912	E2F1 antibody	Rb pAb	Hu	ICC/IF, WB
GTX70163	E2F1 [16G7] antibody	Ms mAb	Hu	ICC/IF, IP, WB
GTX70154	E2F1 [17E2] antibody	Ms mAb	Hu	IP, WB
GTX62667	E2F1 [EPR3818(2)] antibody	Rb mAb	Hu	WB
GTX11838	E2F2 [CC11] antibody	Ms mAb	Hu	GSA, IP, WB
GTX11843	E2F3 [PG30] antibody	Ms mAb	Hu	GSA, IP, WB
GTX73043	E2F4 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX11845	E2F4 [SPM179] antibody	Ms mAb	Hu, Rat	GSA, ICC/IF, IHC-P, WB
GTX73044	E2F5 antibody	Rb pAb	Hu, Ms, Rat	WB
GTX114373	E2F6 antibody	Rb pAb	Hu	IHC, WB
GTX11952	E2F6 [TFE61] antibody	Ms mAb	Hu	WB

p53

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX102965	p53 antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX70214	p53 [D01] antibody	Ms mAb	Hu	IHC-Fr, IHC-P, IP, WB
GTX70218	p53 [Pab240] antibody	Ms mAb	Hu, Ms	ELISA, FACS, IHC-Fr, IHC-P, IP, WB
GTX70216	p53 [Pab1801] antibody	Ms mAb	Hu	ELISA, FACS, IHC-Fr, IHC-P, IP, RIA, WB
GTX61000	p53 [Y5] antibody	Rb mAb	Hu, Rat	ICC/IF, IHC, IP, WB
GTX61016	p53 [E47] antibody	Rb mAb	Hu	FACS, ICC, IP, WB
GTX21431	p53 phospho S15 antibody	Rb pAb	Hu, Ms, Rat	IHC, IP, WB
GTX61775	p53 Phospho S46 [EP42Y] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB



E2F1 antibody (GTX112912):
WB analysis on A431 whole cell lysate.



E2F6 antibody (GTX114373):
IHC analysis on formalin fixed paraffin-embedded H441 xenograft.



MDM2 antibody (GTX100653):
ICC/IF analysis of paraformaldehyde-fixed HeLa cells.

MDM2 and MDM4

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX100653	MDM2 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB,
GTX100531	MDM2 antibody	Rb pAb	Hu	ICC/IF, IHC-P, WB,
GTX16895	MDM2 [2A10] antibody	Ms mAb	Hu	ICC/IF, IHC-P, IP, WB
GTX10344	MDM2 [MD-219] antibody	Ms mAb	Ms	ELISA, FACS, ICC/IF, WB
GTX21094	MDM2 phospho S185+D3161 antibody	Rb pAb	Hu, Ms	ELISA, WB
GTX77723	MDM4 antibody	Rb pAb	Hu	WB

Fanconi anemia proteins (FANCs) and GADD45

Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX113433	FANCA antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX100400	FANCC antibody	Rb pAb	Hu, Ms	ICC/IF, WB
GTX116037	FANCD2 antibody	Rb pAb	Hu	IHC-P, WB
GTX70299	FANCD2 [103] antibody	Ms mAb	Hu	ELISA, WB
GTX62521	FANCD2 [EPR2302] antibody	Rb mAb	Hu, Ms, Rat	ICC/IF, IHC, IP, WB
GTX100164	FANCG antibody	Rb pAb	Hu, Ms	ICC/IF, WB
GTX100072	FANCI antibody	Rb pAb	Hu	WB
GTX100162	FANCL antibody	Rb pAb	Hu	WB
GTX108257	GADD45 gamma antibody	Rb pAb	Hu	WB

14-3-3 proteins

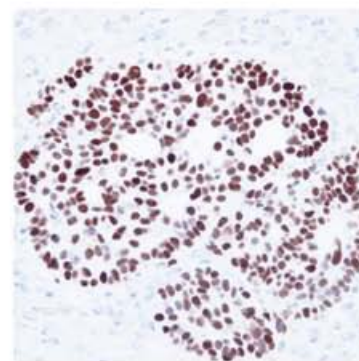
Cat. No.	Product	Host & Clonality	Reactivity	Application
GTX104757	14-3-3 beta antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX113296	14-3-3 beta antibody	Rb pAb	Hu	ICC/IF, WB
GTX61025	14-3-3 b/a (C-term) [Y62] antibody	Rb mAb	Hu, Ms, Rat	FACS, ICC/IF, IHC, IP, WB
GTX61021	14-3-3 b/a (N-term) [E58] antibody	Rb mAb	Hu, Ms, Rat	FACS, IHC, WB
GTX110629	14-3-3 gamma antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX113298	14-3-3 gamma antibody	Rb pAb	Hu	ICC/IF, WB
GTX14118	14-3-3 gamma [3F8] antibody	Ms mAb	Hu	IP, WB
GTX109090	14-3-3 epsilon antibody	Rb pAb	Hu	ICC/IF, IHC, WB
GTX113576	14-3-3 epsilon antibody	Rb pAb	Hu	ICC/IF, WB
GTX62328	14-3-3 epsilon [EPR3918] antibody	Rb mAb	Hu, Ms, Rat	FC, ICC/IF, WB
GTX62451	14-3-3 epsilon [EPR3919] antibody	Rb mAb	Hu, Ms, Rat	FC, ICC/IF, WB
GTX101075	14-3-3 zeta antibody	Rb pAb	Hu, Ms	ICC/IF, WB
GTX104758	14-3-3 eta antibody	Rb pAb	Hu	WB
GTX100289	14-3-3 sigma antibody	Rb pAb	Hu	ICC/IF, WB
GTX112949	14-3-3 sigma antibody	Rb pAb	Hu	IHC-P, WB
GTX14122	14-3-3 sigma [1.T.28] antibody	Ms mAb	Hu, Ms, Rat	WB
GTX14123	14-3-3 sigma [1.N.6] antibody	Ms mAb	Hu	ICC/IF, IHC-P, IP, WB
GTX102199	14-3-3 tau antibody	Rb pAb	Hu	WB
GTX10439	14-3-3 tau [3B9] antibody	Ms mAb	Cow, Hu, Ms, Rat	IP, WB

RPA

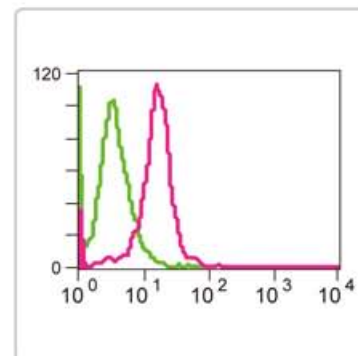
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Rad51

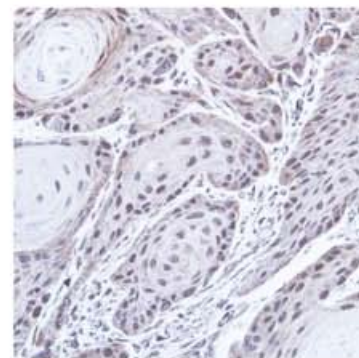
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**p53 antibody (GTX102965):**

IHC analysis on formalin fixed paraffin-embedded Cal27 xenograft.

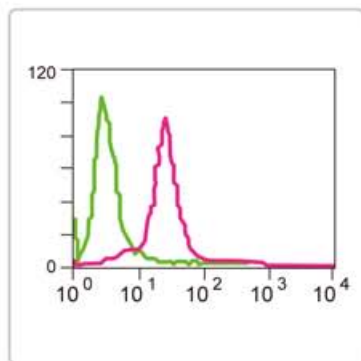
**p53 (C-term) [E47] antibody (GTX61016):**

FACS analysis of permeabilized A431 cells using anti-p53 antibody (red) or a rabbit IgG as a negative control (green).

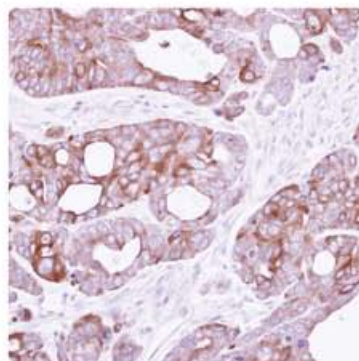
**FANCD2 antibody (GTX116037):**

IHC analysis on formalin fixed paraffin-embedded SG xenograft.

DNA Damage Sensors & Checkpoint Signaling



14-3-3 b/a (N-term) [E58] antibody (GTX61021):
FACS analysis of permeabilized HeLa cells using anti-14-3-3 b/a antibody (red) or a rabbit IgG as a negative control (green)



14-3-3 sigma antibody (GTX112949):
IHC analysis on formalin fixed paraffin-embedded NCIN87 xenograft.

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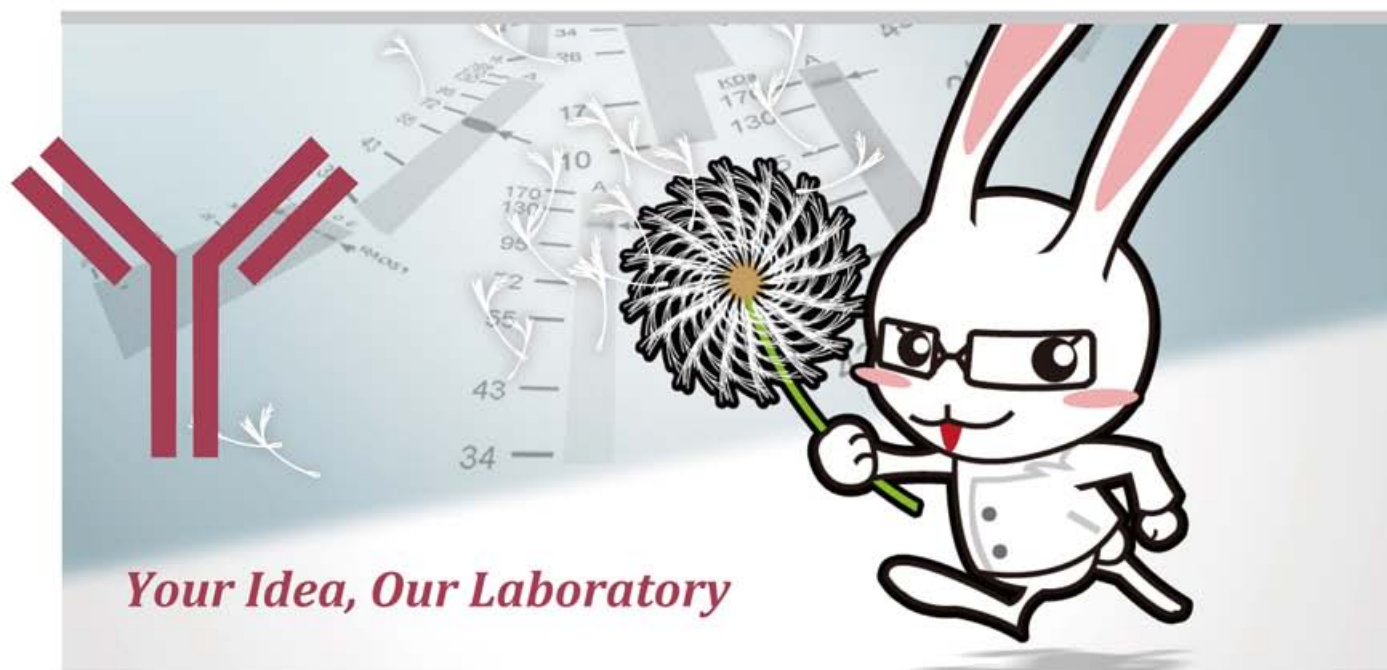
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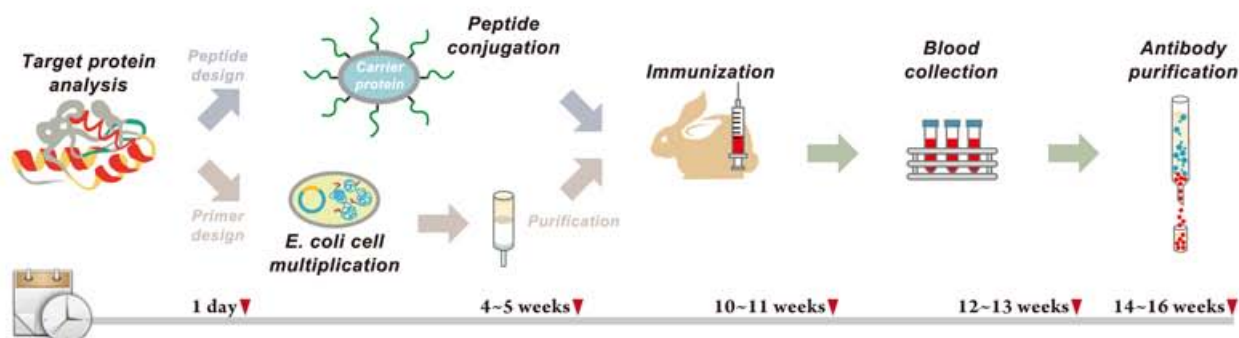
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