

CHEK1 recombinant antibody

CHEK1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA243819	Rabbit	Human	Immunofluorescence, Immunohistochemistry, Western Blot, ELISA

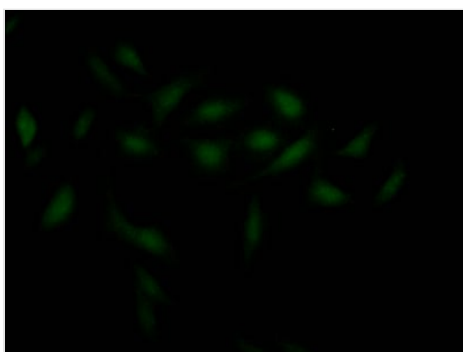
PRODUCT SYNONYMS

CHEK1; Monoclonal Recombinant Antibody; CHEK1 Antibody; Serine/threonine-protein kinase Chk1 (EC 2.7.11.1) (CHK1 checkpoint homolog) (Cell cycle checkpoint kinase) (Checkpoint kinase-1); CHK1; CHEK1 recombinant antibody

PRODUCT SPECIFICATIONS

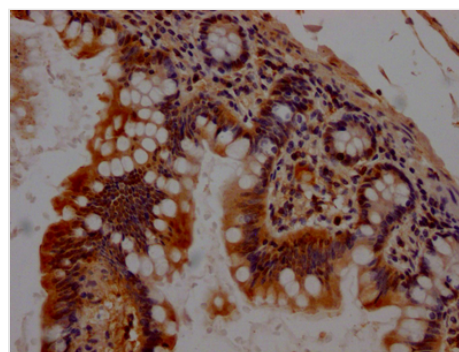
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	2F2
Purity/Purification	Affinity-chromatography
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, PH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Applicable Applications for CHEK1 recombinant antibody	IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot), ELISA
Antibody Type	Recombinant Antibody
Conjugation	Non-conjugated
Immunogen	A synthesized peptide derived from human Chk1
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.

IMAGES



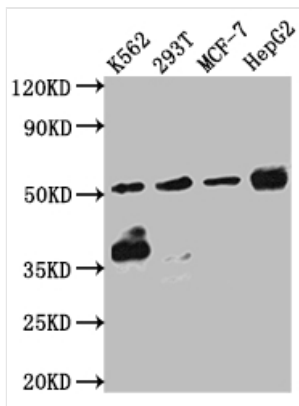
IF (Immunofluorescence)

Immunofluorescence staining of HeLa Cells at 1?50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4 degree C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG ?H+L?.



IHC (Immunohistochemistry)

IHC image diluted at 1:100 and staining in paraffin-embedded human small intestine tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4 degree C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



WB (Western Blot)

Western BlotPositive WB detected in: K562 whole cell lysate, 293T whole cell lysate, MCF-7 whole cell lysate, HepG2 whole cell lysateAll lanes: Chk1 antibody at 1:1000SecondaryGoat polyclonal to rabbit IgG at 1/50000 dilutionPredicted band size: 55, 44, 51 kDaObserved band size: 55 kDa

ADDITIONAL INFORMATION

Related Product Information for CHEK1 recombinant antibody	Serine/threonine-protein kinase which is required for checkpoint-mediated cell cycle arrest and activation of DNA repair in response to the presence of DNA damage or unreplicated DNA. May also negatively regulate cell cycle progression during unperturbed cell cycles. This regulation is achieved by a number of mechanisms that together help to preserve the integrity of the genome. Recognizes the substrate consensus sequence [R-X-X-S/T]. Binds to and phosphorylates CDC25A, CDC25B and CDC25C. Phosphorylation of CDC25A at 'Ser-178' and 'Thr-507' and phosphorylation of CDC25C at 'Ser-216' creates binding sites for 14-3-3 proteins which inhibit CDC25A and CDC25C. Phosphorylation of CDC25A at 'Ser-76', 'Ser-124', 'Ser-178', 'Ser-279' and 'Ser-293' promotes proteolysis of CDC25A. Phosphorylation of CDC25A at 'Ser-76' primes the protein for subsequent phosphorylation at 'Ser-79', 'Ser-82' and 'Ser-88' by NEK11, which is required for polyubiquitination and degradation of CDC25A. Inhibition of CDC25 leads to increased inhibitory tyrosine phosphorylation of CDK-cyclin complexes and blocks cell cycle progression. Also phosphorylates NEK6. Binds to and phosphorylates RAD51 at 'Thr-309', which promotes the release of RAD51 from BRCA2 and enhances the association of RAD51 with chromatin, thereby promoting DNA repair by homologous recombination. Phosphorylates multiple sites within the C-terminus of TP53, which promotes activation of TP53 by acetylation and promotes cell cycle arrest and suppression of cellular proliferation. Also promotes repair of DNA cross-links through phosphorylation of FANCE. Binds to and phosphorylates TLK1 at 'Ser-743', which prevents the TLK1-dependent phosphorylation of the chromatin assembly factor ASF1A. This may enhance chromatin assembly both in the presence or absence of DNA damage. May also play a role in replication fork maintenance through regulation of PCNA. May regulate the transcription of genes that regulate cell-cycle progression through the phosphorylation of histones. Phosphorylates histone H3.1 (to form H3T11ph), which leads to epigenetic inhibition of a subset of genes. May also phosphorylate RB1 to promote its interaction with the E2F family of transcription factors and subsequent cell cycle arrest.
Product Categories/Family for CHEK1 recombinant antibody	Epigenetics and Nuclear Signaling; Cancer

NCBI AND UNIPROT INFORMATION

NCBI GI #	166295194
NCBI GeneID	1111
NCBI Accession #	NP_001107593.1
NCBI GenBank Nucleotide #	NM_001114121.2
UniProt Accession #	O14757; A8K934; B4DDD0; B4DSK3; B5BTY6; F5H7S4; H2BI51
Molecular Weight	54,434 Da
NCBI Official Full Name	serine/threonine-protein kinase Chk1 isoform 1
NCBI Official Synonym Full Names	checkpoint kinase 1

NCBI Official Symbol	CHEK1
NCBI Official Synonym Symbols	CHK1
NCBI Protein Information	serine/threonine-protein kinase Chk1; Chk1-S; checkpoint kinase-1; CHK1 checkpoint homolog; cell cycle checkpoint kinase; Checkpoint, S. pombe, homolog of, 1
UniProt Protein Name	Serine/threonine-protein kinase Chk1
UniProt Gene Name	CHEK1
UniProt Synonym Gene Names	CHK1
UniProt Entry Name	CHK1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/chek1-recombinant-antibody-clone-2f2-immunofluorescence-immunohistochemistry-western-blot-elisa/243819>