

Product Name: Chk1 (10U9) Rabbit Monoclonal Antibody
Catalog #: AMRe08761

Summary

Production Name	Chk1 (10U9) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	CHEK1
Alternative Names	Serine/threonine-protein kinase Chk1; CHEK1; CHK1
Gene ID	1111.0
SwissProt ID	O14757.

Application

Dilution Ratio	WB 1:500-1:2000
Molecular Weight	54kDa

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Background

DNA damage induced protein phosphorylation; regulation of mitotic centrosome separation; regulation of S phase; peptidyl-threonine phosphorylation; DNA repair; chromatin-mediated maintenance of transcription; negative regulation of mitosis; 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 (PubMed:

[11535615](http://www.uniprot.org/citations/11535615)), PubMed: [12446774](http://www.uniprot.org/citations/12446774)), PubMed: [12399544](http://www.uniprot.org/citations/12399544)), PubMed: [14559997](http://www.uniprot.org/citations/14559997)), PubMed: [14988723](http://www.uniprot.org/citations/14988723)), PubMed: [15311285](http://www.uniprot.org/citations/15311285)), PubMed: [15665856](http://www.uniprot.org/citations/15665856)), PubMed: [15650047](http://www.uniprot.org/citations/15650047)), PubMed: [32357935](http://www.uniprot.org/citations/32357935)). May also negatively regulate cell cycle progression during unperturbed cell cycles (PubMed: [11535615](http://www.uniprot.org/citations/11535615)), PubMed: [12446774](http://www.uniprot.org/citations/12446774)), PubMed: [12399544](http://www.uniprot.org/citations/12399544)), PubMed: [14559997](http://www.uniprot.org/citations/14559997)), PubMed: [14988723](http://www.uniprot.org/citations/14988723)), PubMed: [15311285](http://www.uniprot.org/citations/15311285)), PubMed: [15665856](http://www.uniprot.org/citations/15665856)), PubMed: [15650047](http://www.uniprot.org/citations/15650047)). This regulation is achieved by a number of mechanisms that together help to preserve the integrity of the genome (PubMed: [11535615](http://www.uniprot.org/citations/11535615)), PubMed: [12446774](http://www.uniprot.org/citations/12446774)), PubMed: [12399544](http://www.uniprot.org/citations/12399544)), PubMed: [14559997](http://www.uniprot.org/citations/14559997)), PubMed: [14988723](http://www.uniprot.org/citations/14988723)), PubMed: [15311285](http://www.uniprot.org/citations/15311285)), PubMed: [15665856](http://www.uniprot.org/citations/15665856)), PubMed: [15650047](http://www.uniprot.org/citations/15650047)). Recognizes the substrate consensus sequence [R-X-X- S/T] (PubMed: [11535615](http://www.uniprot.org/citations/11535615)), PubMed: [12446774](http://www.uniprot.org/citations/12446774)), PubMed: [12399544](http://www.uniprot.org/citations/12399544)), PubMed:

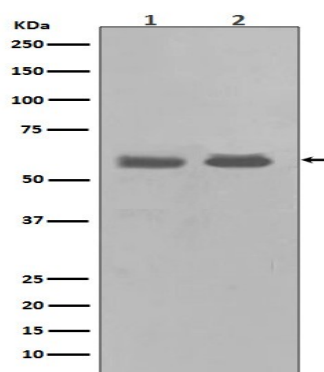
Web: <https://www.enkilife.com> E-mail: order@enkilife.com techsupport@enkilife.com Tel: 0086-27-87002838

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href="http://www.uniprot.org/citations/16511572" target="_blank">16511572). Also promotes repair of DNA cross-links through phosphorylation of FANCE (PubMed:17296736). Binds to and phosphorylates TLK1 at 'Ser-743', which prevents the TLK1-dependent phosphorylation of the chromatin assembly factor ASF1A (PubMed:12660173, PubMed:12955071). This may enhance chromatin assembly both in the presence or absence of DNA damage (PubMed:12660173, PubMed:12955071). May also play a role in replication fork maintenance through regulation of PCNA (PubMed:18451105). May regulate the transcription of genes that regulate cell-cycle progression through the phosphorylation of histones (By similarity). Phosphorylates histone H3.1 (to form H3T11ph), which leads to epigenetic inhibition of a subset of genes (By similarity). May also phosphorylate RB1 to promote its interaction with the E2F family of transcription factors and subsequent cell cycle arrest (PubMed:17380128). Phosphorylates SPRTN, promoting SPRTN recruitment to chromatin (PubMed:31316063). Reduces replication stress and activates the G2/M checkpoint, by phosphorylating and inactivating PABIR1/FAM122A and promoting the serine/threonine-protein phosphatase 2A-mediated dephosphorylation and stabilization of WEE1 levels and activity (PubMed:33108758).

Research Area

Image Data



Western blot analysis of Chk1 in (1) K562 cell lysate; (2) PC-12 cell lysate.

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