Datasheet for ABIN7138533

anti-CHEK1 antibody (pSer296)

2 Images

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Overview

Quantity:	100 µL
Target:	CHEK1
Binding Specificity:	pSer296
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Peptide sequence around phosphorylation site of Serine 296(I-F-S(p)-N-L) derived from Human Chk1.
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi

Target Details

Target:	CHEK1
Alternative Name:	CHEK1 (CHEK1 Products)
Background:	Background:

Target Details

	Required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. May also negatively regulate cell cycle progression during unperturbed cell cycles. 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. Inhibition of CDC25 activity leads to increased inhibitory tyrosine phosphorylation of CDK-cyclin complexes and blocks cell cycle progression. Binds to and phosphorylates RAD51 at 'Thr-309', which may enhance the association of RAD51 with chromatin and promote DNA repair by homologous recombination. Binds to and phosphorylates TLK1 at 'Ser-743', which prevents the TLK1-dependent phosphorylation of the chromatin assembly factor ASF1A. This may affect chromatin assembly during S phase or DNA repair. May also phosphorylate multiple sites within the C-terminus of TP53, which promotes activation of TP53 by acetylation and enhances suppression of cellular proliferation. Sanchez Y., Science 277:1497-1501(1997). Flaggs G., Curr. Biol. 7:977-986(1997). Semba S., Int. J. Oncol. 16:731-737(2000). Aliases: C85740 antibody, Cell cycle checkpoint kinase antibody, Checkpoint , S. pombe, homolog of, 1 antibody, Checkpoint kinase 1 antibody, Checkpoint kinase 1 homolog (S. pombe) antibody, CHEK 1 antibody, Chek1 antibody, Chk 1 antibody, Chk1 antibody, CHK1 checkpoint homolog (S. pombe) antibody, CHK1_HUMAN antibody, EC 2.7.11.1 antibody, rad27 antibody, Serine/threonine protein kinase Chk1 antibody, Serine/threonine-protein kinase CHK1 antibody, STT3, subunit of the oligosaccharyltransferase complex, homolog A (S. cerevisiae) antibody
UniProt:	O14757
Pathways:	p53 Signaling, Apoptosis, Cell Division Cycle, DNA Damage Repair

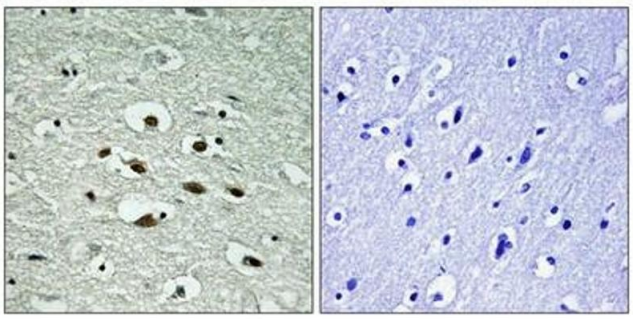
Application Details

Application Notes:	WB:1:500-1:1000, IHC:1:50-1:100,
Restrictions:	For Research Use only

Handling

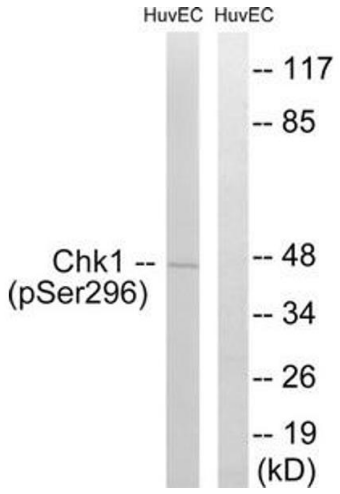
Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunohistochemistry

Image 1. Immunohistochemical analysis of paraffin-embedded human brain tissue using Chk1 (Phospho-Ser296) antibody (left)or the same antibody preincubated with blocking peptide (right).



Western Blotting

Image 2. Western blot analysis of extracts from HUVEC cells treated with UV using Chk1 (Phospho-Ser296) Antibody.The lane on the right is treated with the antigen-specific peptide.