

Chk1 (Phospho-Ser280) Conjugated Antibody

Catalog No: #C11140



Package Size: #C11140-AF350 100ul #C11140-AF405 100ul #C11140-AF488 100ul
 #C11140-AF555 100ul #C11140-AF594 100ul #C11140-AF647 100ul
 #C11140-AF680 100ul #C11140-AF750 100ul #C11140-Biotin 100ul

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Description

Product Name	Chk1 (Phospho-Ser280) Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu
Specificity	The antibody detects endogenous level of Chk1 only when phosphorylated at serine 280.
Immunogen Description	Peptide sequence around phosphorylation site of serine 280 (V-T-S(p)-G-G) derived from Human Chk1.
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	CHEK1;Chk1
Accession No.	Swiss-Prot#:O14757NCBI Gene ID:1111NCBI mRNA#:NM_001114121.1 NCBI Protein#:NP_001107593.1
Uniprot	O14757
GeneID	1111;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	56
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

Product Description

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 chromatography using non-phosphopeptide.

Background

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.

Note: This product is for in vitro research use only