

**DATASHEET**

**CHK1 (Phospho-S301) Rabbit Polyclonal Antibody**

CAT. NO. APA11922

**KEY FEATURES**

Target	CHK1 (Phospho-S301)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat	Clonality	Polyclonal
Applications	WB, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.		Storage at -20°C

**BACKGROUND**

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 .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:100 - 1:500

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Rabbit polyclonal antibody to CHK1 (Phospho-S301)
Specificity	Recognizes endogenous levels of CHK1 protein only when phosphorylated at S301.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S301 of human CHK1 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 54 kD; Observed: 56 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	CHK1; Serine/threonine-protein kinase Chk1; CHK1 checkpoint homolog; Cell cycle checkpoint kinase; Checkpoint kinase-1
Gene Symbol	CHEK1
Entrez Gene	1111(Human); 12649(Mouse); 140583(Rat)
SwissProt	O14757(Human); O35280(Mouse); Q91ZN7(Rat)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

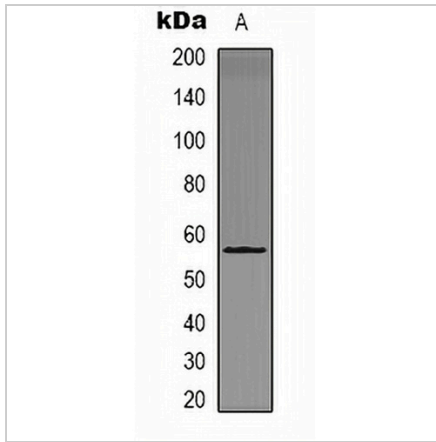
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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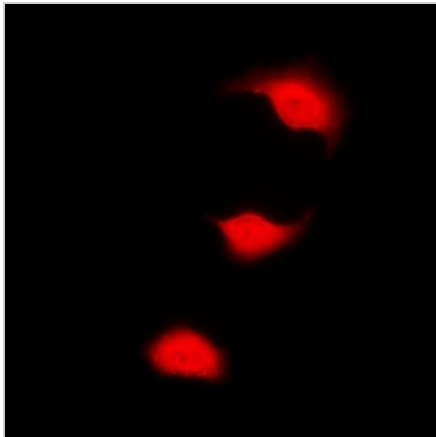
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**DATA**



Western blot analysis of CHK1 (Phospho-S301) expression in HEK293T (A) whole cell lysates. (Predicted band size: 54 kD; Observed band size: 56 kD)



Immunofluorescent analysis of CHK1 (Phospho-S301) staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.