abcam

Product datasheet

Anti-Chk2 (phospho T383) antibody ab59408

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Overview

Product name	Anti-Chk2 (phospho T383) antibody
Description	Rabbit polyclonal to Chk2 (phospho T383)
Host species	Rabbit
Tested applications	**Suitable for:** ICC, WB
Species reactivity	**Reacts with:** Human, African green monkey
Immunogen	Synthetic peptide corresponding to Human Chk2 (phospho T383). (M-R-TP-L-C) Database link: O96017
Positive control	WB: COS7 cell extracts, UV treated (30 mins). ICC: Human colon carcinoma cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our Abpromise guarantee covers the use of ab59408 in the following tested applications.

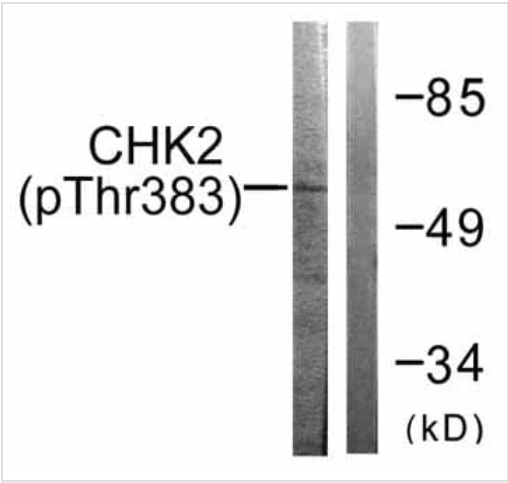
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
WB	★★★★★ (2)	1/500 - 1/1000. Detects a band of approximately 61 kDa (predicted molecular weight: 61 kDa).

Target

Function	Regulates cell cycle checkpoints and apoptosis in response to DNA damage, particularly to DNA double-strand breaks. Inhibits CDC25C phosphatase by phosphorylation on 'Ser-216', preventing the entry into mitosis. May also play a role in meiosis. Regulates the TP53 tumor suppressor through phosphorylation at 'Thr-18' and 'Ser-20'.
Tissue specificity	High expression is found in testis, spleen, colon and peripheral blood leukocytes. Low expression is found in other tissues.
Involvement in disease	Defects in CHEK2 are associated with Li-Fraumeni syndrome 2 (LFS2) [MIM:609265]; a highly penetrant familial cancer phenotype usually associated with inherited mutations in p53/TP53. Defects in CHEK2 may be a cause of susceptibility to prostate cancer (PC) [MIM:176807]. It is a malignancy originating in tissues of the prostate. Most prostate cancers are adenocarcinomas that develop in the acini of the prostatic ducts. Other rare histopathologic types of prostate cancer that occur in approximately 5% of patients include small cell carcinoma, mucinous carcinoma, prostatic ductal carcinoma, transitional cell carcinoma, squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma (basaloid), signet-ring cell carcinoma and neuroendocrine carcinoma. Defects in CHEK2 are found in some patients with osteogenic sarcoma (OSRC) [MIM:259500].
Sequence similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CHK2 subfamily. Contains 1 FHA domain. Contains 1 protein kinase domain.
Post-translational modifications	Phosphorylated by PLK4.
Cellular localization	Nucleus; Nucleus. Isoform 10 is present throughout the cell and Nucleus > PML body. Nucleus > nucleoplasm. Recruited into PML bodies together with TP53.

Images

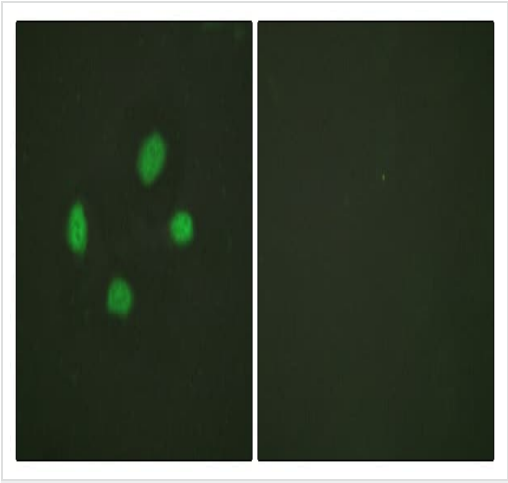


Western blot - Anti-Chk2 (phospho T383) antibody (ab59408)

All lanes : Anti-Chk2 (phospho T383) antibody (ab59408) at 1/500 dilution

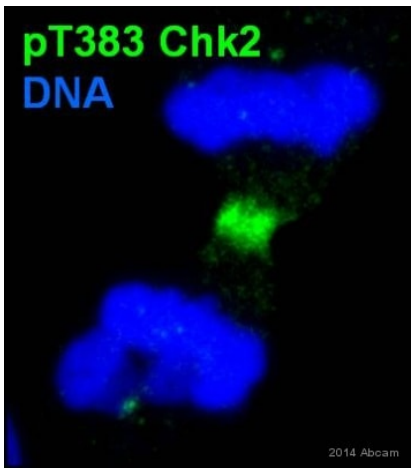
Lane 1 : COS7 cell extracts, UV treated (30 mins)
Lane 2 : COS7 cell extracts, UV treated (30 mins) with immunising phosphopeptide

Predicted band size: 61 kDa
Observed band size: 61 kDa



Immunocytochemistry - Anti-Chk2 (phospho T383) antibody (ab59408)

HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Chk2 (phospho T383) (green) using ab59408 at 1/100 dilution in ICC/IF, in the presence (right panel) or absence (left panel) of immunizing phosphopetide.



Immunocytochemistry - Anti-Chk2 (phospho T383) antibody (ab59408)

This image is courtesy of an Abreview submitted by Eleni Petsalaki

ab59408 staining Chk2 (phospho T383) in human colon carcinoma cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 0.5% Triton X-100 and blocked with 1% BSA for 30 minutes at 37°C. Samples were incubated with primary antibody (1/100 in PBS + 1% BSA) for 1 hour at 37°C. A FITC-conjugated goat anti-rabbit IgG polyclonal (1/100) was used as the secondary antibody.

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