abcam

Product datasheet

Anti-Chk2 antibody [EPR5528] - BSA and Azide free ab248527

KO VALIDATED Recombinant RabMAb

5 Images

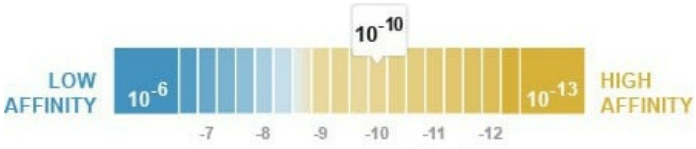
Overview

Product name	Anti-Chk2 antibody [EPR5528] - BSA and Azide free
Description	Rabbit monoclonal [EPR5528] to Chk2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab248527 is the carrier-free version of **ab133505**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	$K_D = 1.02 \times 10^{-10}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Affinity purified
Clonality	Monoclonal
Clone number	EPR5528
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248527 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
WB		Use at an assay dependent concentration. Detects a band of approximately 61 kDa (predicted molecular weight: 61 kDa).

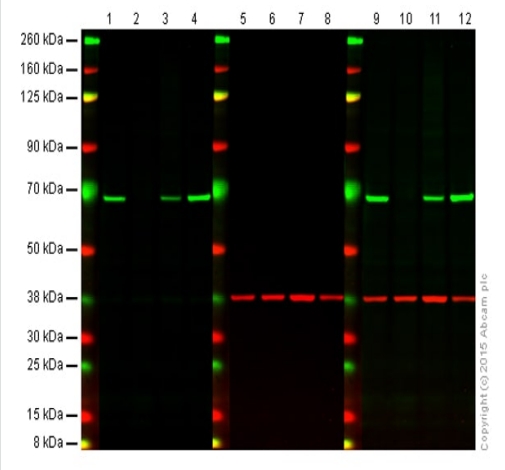
Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

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 antibody [EPR5528] - BSA and Azide free (ab248527)

This data was developed using **ab133505**, the same antibody clone in a different buffer formulation.

Lanes 1, 5, and 9: Wild-type HAP1 cell lysate (20 µg)

Lanes 2, 6, and 10: Chk2 knockout HAP1 cell lysate (20 µg)

Lanes 3, 7, and 11: HeLa cell lysate (20 µg)

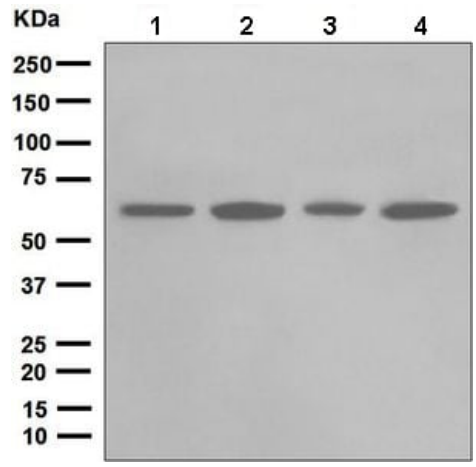
Lanes 4, 8, and 12: HEK293 cell lysate (20 µg)

Lanes 1, 2, 3, and 4: Green signal from target - **ab133505** observed at 62 kDa

Lanes 5, 6, 7, and 8: Red signal from loading control - **ab8245** observed at 37 kDa

Lanes 9, 10, 11, and 12: Merged (red and green) signal

ab133505 was shown to specifically react with Chk2 when Chk2 knockout samples were used. Wild-type and Chk2 knockout samples were subjected to SDS-PAGE. **ab133505** and **ab8245** (loading control to GAPDH) were diluted 1/10000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-Chk2 antibody [EPR5528] - BSA and Azide free (ab248527)

All lanes : Anti-Chk2 antibody [EPR5528] (**ab133505**) at 1/10000 dilution

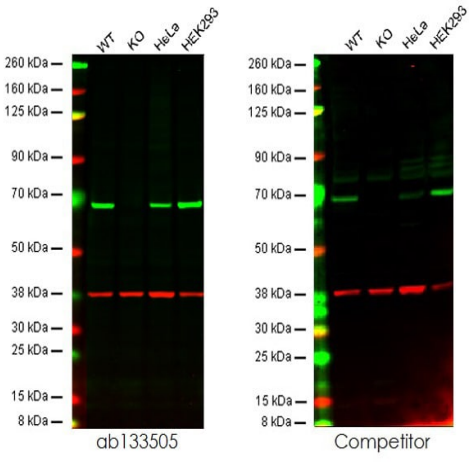
Lane 1 : SH-SY5Y cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : HT29 lysate
Lane 4 : 293T (Human embryonic kidney epithelial cell) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat-anti-rabbit HRP at 1/2000 dilution

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

This data was developed using **ab133505**, the same antibody clone in a different buffer formulation.



Western blot - Anti-Chk2 antibody [EPR5528] - BSA and Azide free (ab248527)

This data was developed using **ab133505**, the same antibody clone in a different buffer formulation.

Lanes 1: Wild-type HAP1 cell lysate (20 µg)

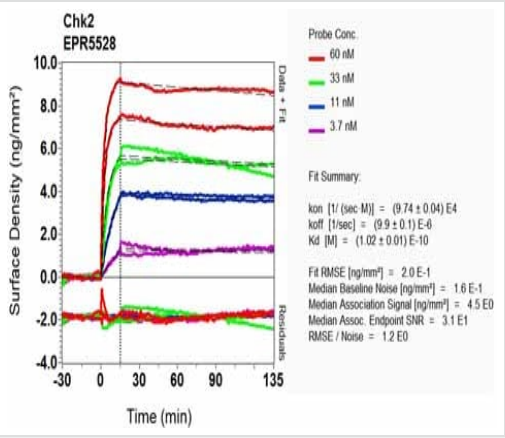
Lanes 2: Chk2 knockout HAP1 cell lysate (20 µg)

Lanes 3: HeLa cell lysate (20 µg)

Lanes 4: HEK293 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - **ab133505** observed at 64 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

This western blot image is a comparison between **ab133505** and a competitor's rabbit polyclonal antibody.

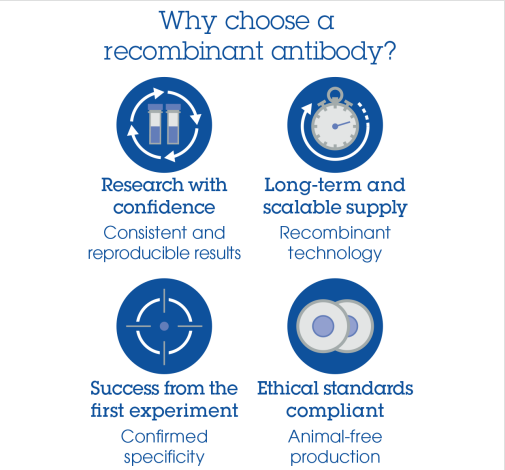


OI-RD Scanning - Anti-Chk2 antibody [EPR5528] - BSA and Azide free (ab248527)

This data was developed using **ab133505**, the same antibody clone in a different buffer formulation.Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-Chk2 antibody [EPR5528] - BSA and Azide free (ab248527)

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