

Product datasheet

Anti-Chk2 antibody [EPR5528] α b133505

KO VALIDATED

Recombinant

RabMAb[®]

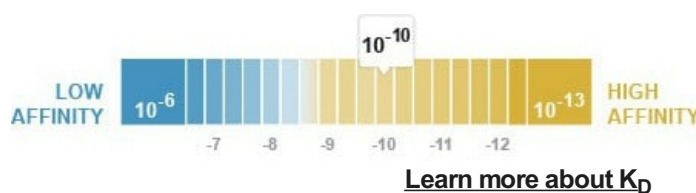
[1 References](#) [5 Images](#)

Overview

Product name	Anti-Chk2 antibody [EPR5528]
Description	Rabbit monoclonal [EPR5528] to Chk2
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 within Human Chk2 aa 1-100 (N terminal). The exact sequence is proprietary.
Positive control	SH-SY5Y, HeLa, HT29 and 293T cell lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K _D)	K _D = 1.02 x 10 ⁻¹⁰ M



Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR5528
Isotype	IgG

Applications

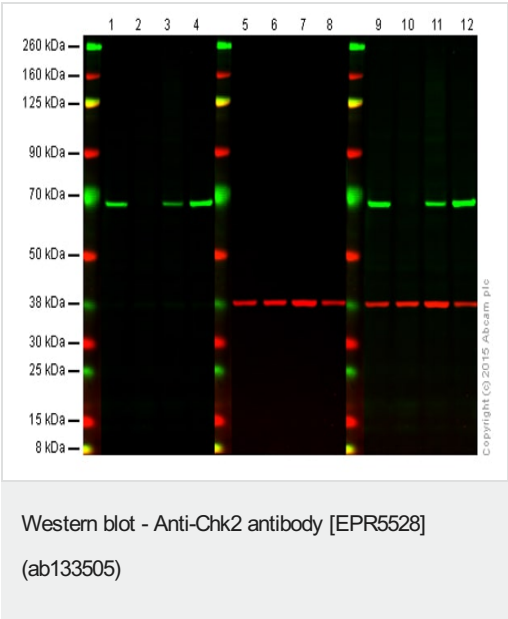
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133505 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent dilution. Detects a band of approximately 61 kDa (predicted molecular weight: 61 kDa).

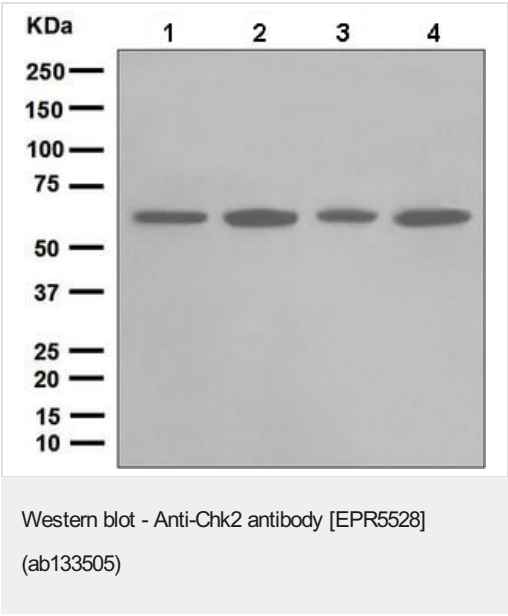
Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

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.



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.



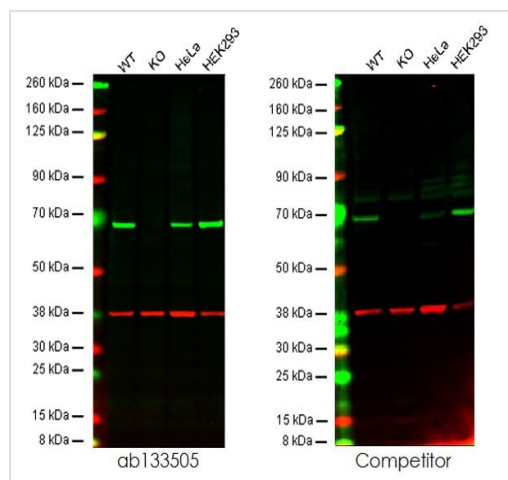
All lanes : Anti-Chk2 antibody [EPR5528] (ab133505) at 1/10000 dilution

Lane 1 : SH-SY5Y lysate
Lane 2 : HeLa lysate
Lane 3 : HT29 lysate
Lane 4 : 293T 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



Western blot - Anti-Chk2 antibody [EPR5528]
(ab133505)

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.

OL-RD Scanning - Anti-Chk2 antibody [EPR5528]
(ab133505)

Equilibrium dissociation constant (K_D)

[Learn more about \$K_D\$](#)

[Click here to learn more about \$K_D\$](#)

Why choose a
recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Chk2 antibody [EPR5528] (ab133505)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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