

Anti-Chk2 antibody [EPR19236] ab199031

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Chk2 antibody [EPR19236]
Description	Rabbit monoclonal [EPR19236] to Chk2
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB, IP
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse spleen and colon lysates; NIH/3T3, C2C12 and bEND.3 whole cell lysates. IHC: Mouse spleen and testis tissue.
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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR19236
Isotype	IgG

Applications

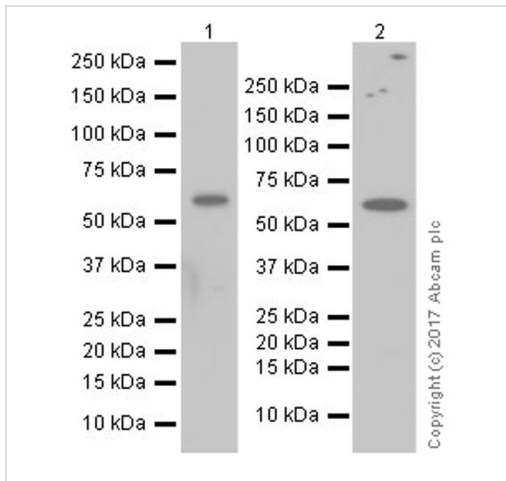
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab199031 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 61 kDa (predicted molecular weight: 61 kDa).
IP		1/40.

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 [EPR19236] (ab199031)

All lanes : Anti-Chk2 antibody [EPR19236] (ab199031) at 1/1000 dilution

Lane 1 : C2C12 (mouse myoblast cell line) whole cell lysate

Lane 2 : bEND.3 (mouse brain endothelioma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

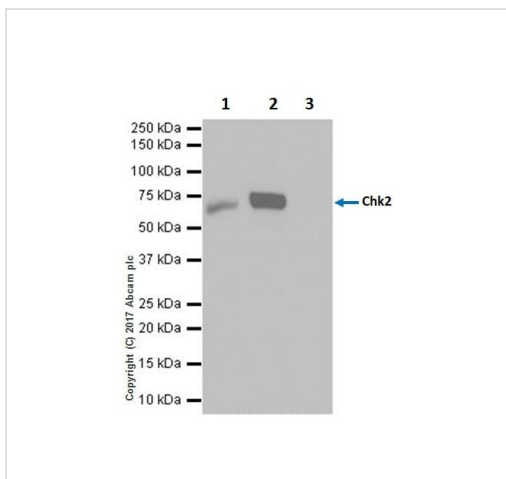
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 61 kDa

Observed band size: 61 kDa

Exposure time: 15 seconds

Blocking and dilution buffer and concentration: 5% NFDm/TBST.



Immunoprecipitation - Anti-Chk2 antibody [EPR19236] (ab199031)

Chk2 was immunoprecipitated from 0.35 mg of NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate with ab199031 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab199031 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

Exposure time 3 minutes.

Lane 1: NIH/3T3 whole cell lysate 10 µg (Input).

Lane 2: ab199031 IP in NIH/3T3 whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab199031 in NIH/3T3 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

All lanes : Anti-Chk2 antibody [EPR19236] (ab199031) at 1/1000

dilution

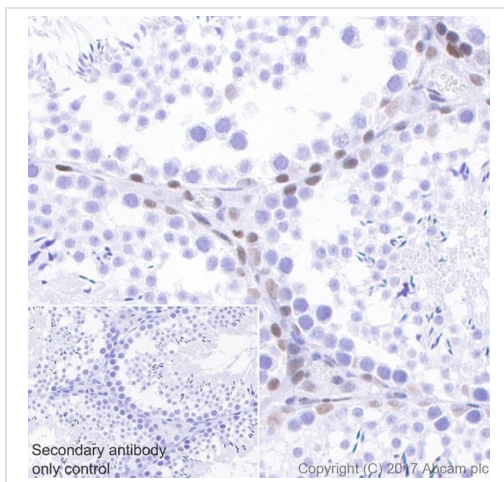
All lanes :

Secondary

All lanes : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/1000 dilution

Observed band size: 61 kDa

Exposure time: 3 minutes



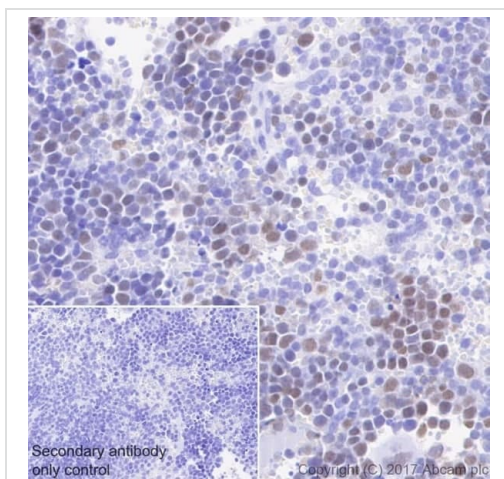
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Chk2 antibody [EPR19236] (ab199031)

Immunohistochemical analysis of paraffin-embedded mouse testis tissue labeling Chk2 with ab199031 at 1/500 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#), ready to use). Nuclear staining on spermatogonia of mouse testis is observed (PMID: 12192050, 11593395). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB [ab209101](#), ready to use.

Nuclear staining on spermatogonia of mouse testis (PMID: 12192050, PMID: 11593395).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



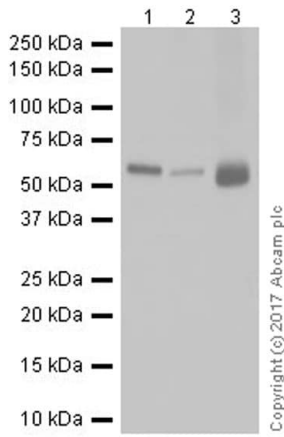
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Chk2 antibody [EPR19236] (ab199031)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling Chk2 with ab199031 at 1/500 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#), ready to use). Nuclear staining on mouse spleen is observed (PMID: 12192050, 11593395). Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB [ab209101](#), ready to use.

Nuclear staining on mouse spleen (PMID: 12192050, PMID: 11593395).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-Chk2 antibody [EPR19236] (ab199031)

All lanes : Anti-Chk2 antibody [EPR19236] (ab199031) at 1/1000 dilution

Lane 1 : Mouse spleen tissue lysate

Lane 2 : Mouse colon tissue lysate

Lane 3 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 61 kDa

Observed band size: 61 kDa

Exposure time: 3 minutes

Blocking and dilution buffer and concentration: 5% NFD/MTBST.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Chk2 antibody [EPR19236] (ab199031)

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