

Product datasheet

Anti-HRAS + KRAS antibody [EPR18713] ab191595

Recombinant RabMAb

★★★★★ 8 Abreviews 1 References 11 Images

Overview

Product name	Anti-HRAS + KRAS antibody [EPR18713]
Description	Rabbit monoclonal [EPR18713] to HRAS + KRAS
Host species	Rabbit
Specificity	Immunoprecipitation requires a mild lysis buffer to achieve an acceptable enrichment.
Tested applications	Suitable for: ICC/IF, WB, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human KRAS and HRAS full length proteins; Human fetal kidney and fetal brain lysates; Mouse and Rat brain lysates; A549, C6, A431 and RAW 264.7 whole cell lysates. ICC/IF: HeLa and NIH/3T3 cells. IP: A549 whole cell lysate.
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	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR18713

Isotype IgG

Applications

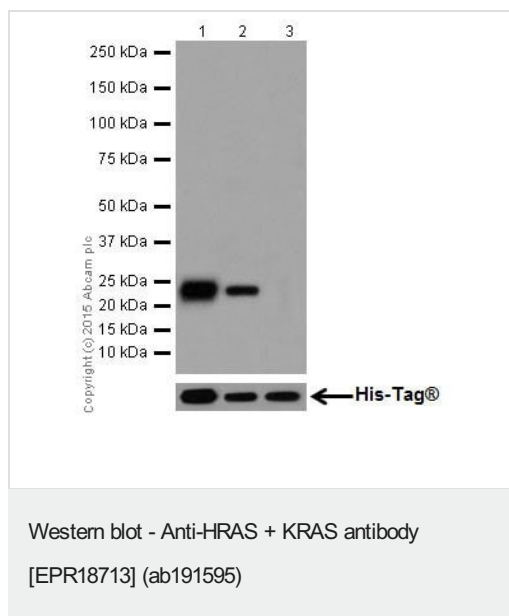
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab191595 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/500.
WB	★★★★★ (5)	1/2000. Detects a band of approximately 21 kDa (predicted molecular weight: 22, 21 kDa).
IP	★☆☆☆☆ (2)	1/70. Immunoprecipitation requires a mild lysis buffer to achieve an acceptable enrichment.

Target

Relevance KRAS: Ras proteins bind GDP/GTP and possess intrinsic GTPase activity. Plays an important role in the regulation of cell proliferation (PubMed:23698361, PubMed:22711838). Enzyme regulation: Alternates between an inactive form bound to GDP and an active form bound to GTP. Activated by a guanine nucleotide-exchange factor (GEF) and inactivated by a GTPase-activating protein (GAP). Interaction with SOS1 promotes exchange of bound GDP by GTP. HRAS: Ras proteins bind GDP/GTP and possess intrinsic GTPase activity. Enzyme regulation: Alternates between an inactive form bound to GDP and an active form bound to GTP. Activated by a guanine nucleotide-exchange factor (GEF) and inactivated by a GTPase-activating protein (GAP).

Images



All lanes : Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/10000 dilution

Lane 1 : Human KRAS full length protein

Lane 2 : Human HRAS full length protein

Lane 3 : Human NRAS full length protein

Lysates/proteins at 0.01 µg per lane.

Secondary

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

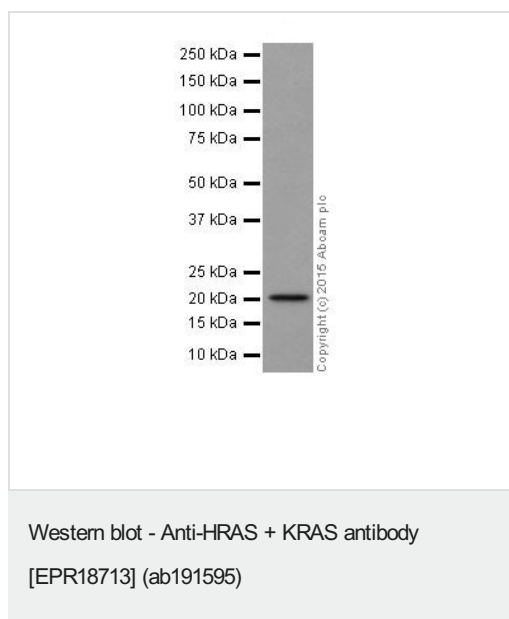
Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDm/TBST.

Human KRAS full length protein contains aa1-189 with His-Tag® at N-Terminus; Human HRAS full length protein contains aa1-189 with His-Tag® at N-Terminus; Human NRAS full length protein contains aa1-189 with His-Tag® at N-Terminus. These are all made in-house.



Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/2000 dilution + Human fetal kidney lysate at 10 µg

Secondary

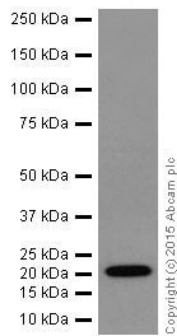
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/50000 dilution

Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-HRAS + KRAS antibody
[EPR18713] (ab191595)

Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/5000 dilution + Human fetal brain lysate at 10 µg

Secondary

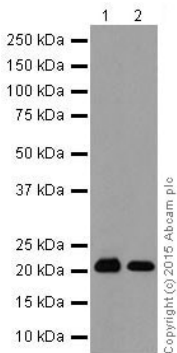
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/50000 dilution

Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-HRAS + KRAS antibody
[EPR18713] (ab191595)

All lanes : Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/2000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Rat brain lysate

Lysates/proteins at 10 µg per lane.

Secondary

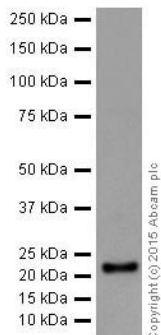
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 5 seconds

Blocking/Dilution buffer: 5% NFDm/TBST.



Western blot - Anti-HRAS + KRAS antibody
[EPR18713] (ab191595)

Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/2000 dilution + A549 (Human lung carcinoma) whole cell lysate at 10 µg

Secondary

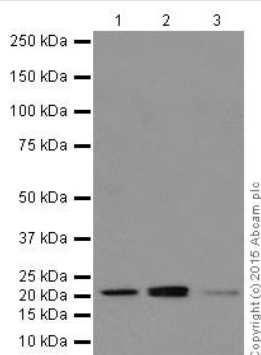
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-HRAS + KRAS antibody
[EPR18713] (ab191595)

All lanes : Anti-HRAS + KRAS antibody [EPR18713] (ab191595) at 1/50000 dilution

Lane 1 : C6 (Rat glial tumor cells) whole cell lysate

Lane 2 : A431 (Human epidermoid carcinoma) whole cell lysate

Lane 3 : RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

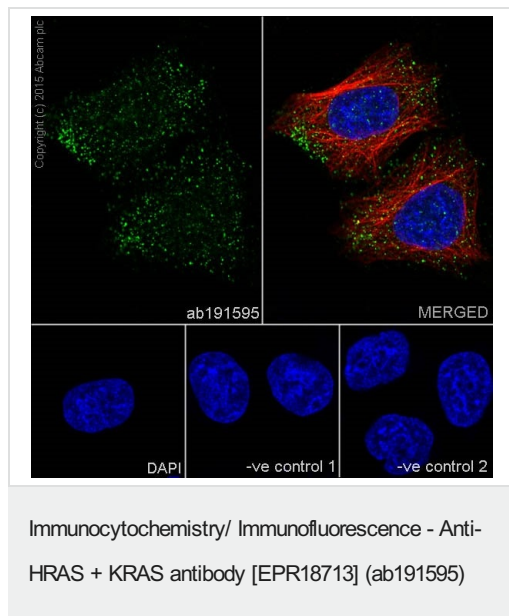
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 22, 21 kDa

Observed band size: 21 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling KRAS + HRAS with ab191595 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Confocal image showing cytoplasm and nuclear staining on HeLa cell line.

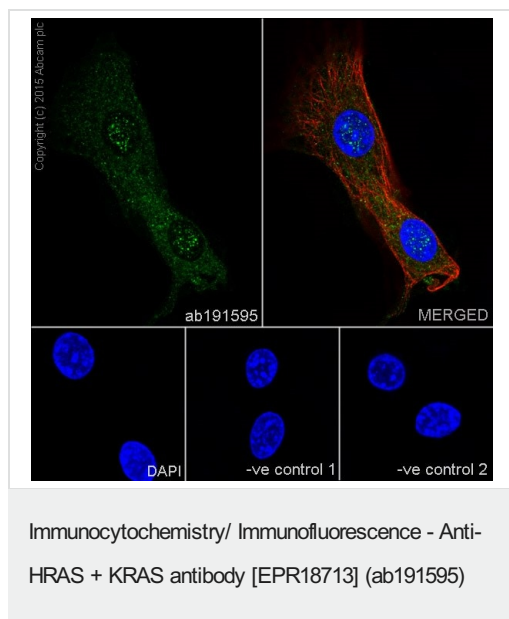
The nuclear counterstain is DAPI (blue).

Tubulin is detected with [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution and [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab191595 at 1/500 dilution followed by [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution followed by [ab150077](#) (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (Mouse embryo fibroblast cells) cells labeling KRAS + HRAS with ab191595 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

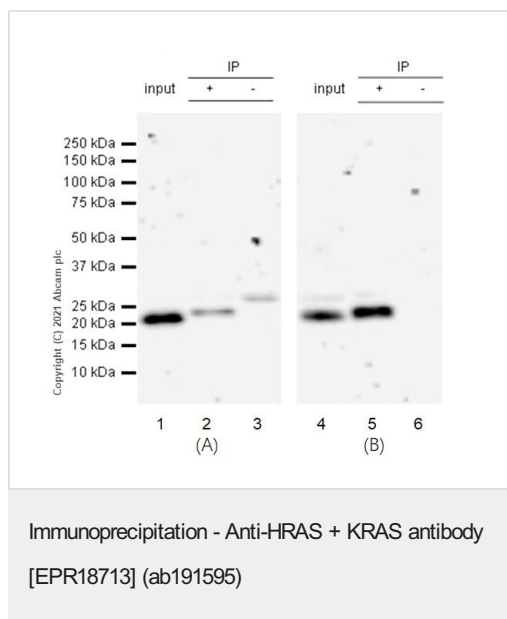
Confocal image showing cytoplasm and nuclear staining on NIH/3T3 cells line.

The nuclear counterstain is DAPI (blue). Tubulin is detected with [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution and [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab191595 at 1/500 dilution followed by [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution followed by [ab150077](#) (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Immunoprecipitation analysis shows milder lysis buffer is required to get desirable enrichment.

Panel A: RIPA buffer

Panel B: IP lysis buffer (see protocol for details)

HRAS + KRAS was immunoprecipitated from Hepa1-6 (Mouse hepatoma epithelial cell) whole cell lysate 10µg with ab191595 at 1/30 dilution (2µg). Western blot was performed on the immunoprecipitate using ab191595 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000 dilution.

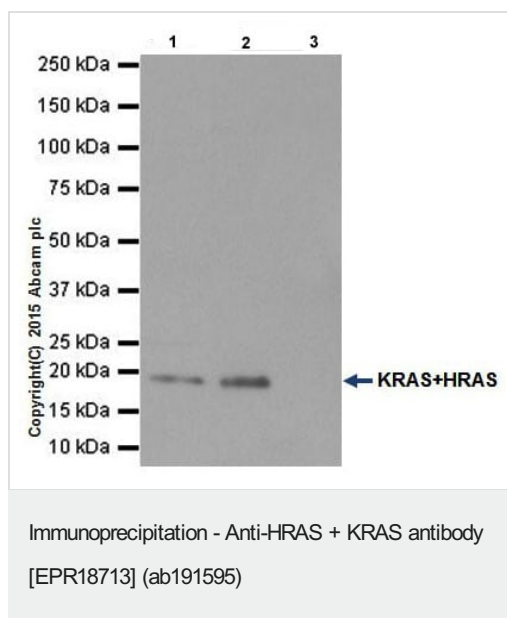
Lane 1 & 4: Hepa1-6 (Mouse hepatoma epithelial cell) whole cell lysate 10µg

Lane 2 & 5: ab191595 IP in Hepa1-6 whole cell lysate

Lane 3 & 6: Rabbit monoclonal IgG (ab172730) instead of ab191595 in Hepa1-6 whole cell lysate

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

Exposure time: 3 minutes



KRAS was immunoprecipitated from 1mg of A549 (Human lung carcinoma) whole cell lysate with ab191595 at 1/70 dilution.

Western blot was performed from the immunoprecipitate using ab191595 at 1/1000 dilution.

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: A549 whole cell lysate 10µg (Input).

Lane 2: ab191595 IP in A549 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab191595 in A549 whole cell lysate.

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

Exposure time: 10 seconds.

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-HRAS + KRAS antibody [EPR18713]
(ab191595)

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

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