

Product datasheet

Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)] ab154868

KO VALIDATED Recombinant RabMAB

[5 Images](#)

Overview

Product name	Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)]
Description	Rabbit monoclonal [EPR10740(B)] to Kinesin Heavy Chain 2
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF Unsuitable for: Flow Cyt or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to residues in Human Kinesin Heavy Chain 2 (Uniprot ID O00139).
Positive control	Human fetal brain tissue lysate; Jurkat, 293T cell lysate; Human thyroid carcinoma tissue; Jurkat cells
General notes	<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> <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>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise[™] guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is</p>

Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR10740(B)
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab154868** 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		1/1000 - 1/10000. Predicted molecular weight: 187 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

Application notes Is unsuitable for Flow Cyt or IP.

Target

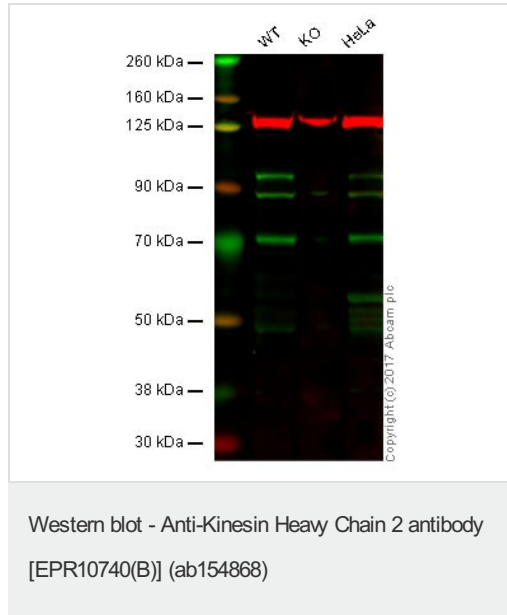
Relevance Kinesins are a superfamily of microtubule-associated motor proteins involved in a variety of cellular processes including membranous organelle transport and cell division. Kinesin has been found in a variety of organisms and cell types and is subject to spatial and temporal regulation. These proteins have a modular structure which includes a conserved motor domain of approximately 350 amino acids, which is responsible for microtubule binding and ATP hydrolysis.

In addition to the motor domain, subfamily members share common domain organization, exhibit sequence similarity, motility properties, and cellular functions outside of the motor domain. An expansive phylogenetic tree of kinesins and kinesin-related proteins (KRPs) has been assembled based on this information.

Cellular localization

Cytoplasm, cytoskeleton

Images



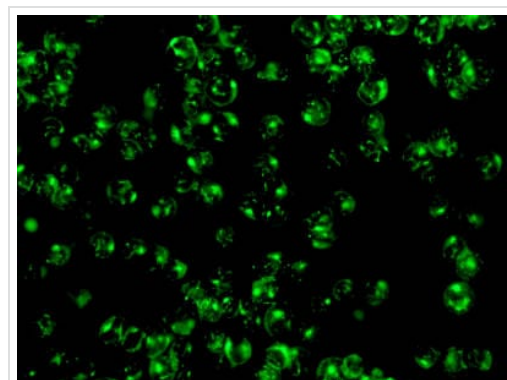
Lane 1: Wild-type HAP1 whole cell lysate (20 μ g)

Lane 2: Kinesin Heavy Chain 2 knockout HAP1 whole cell lysate (20 μ g)

Lane 3: HeLa whole cell lysate (20 μ g)

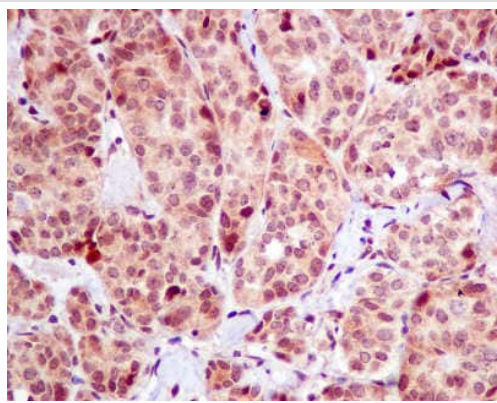
Lanes 1 - 3: Merged signal (red and green). Green - ab154868 observed at 100 kDa. Red - loading control, ab18058, observed at 130 kDa.

ab154868 was shown to recognize Kinesin Heavy Chain 2 in wild-type HAP1 cells as signal was lost at the expected MW in Kinesin Heavy Chain 2 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and Kinesin Heavy Chain 2 knockout samples were subjected to SDS-PAGE. Ab154868 and ab18058 (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)] (ab154868)

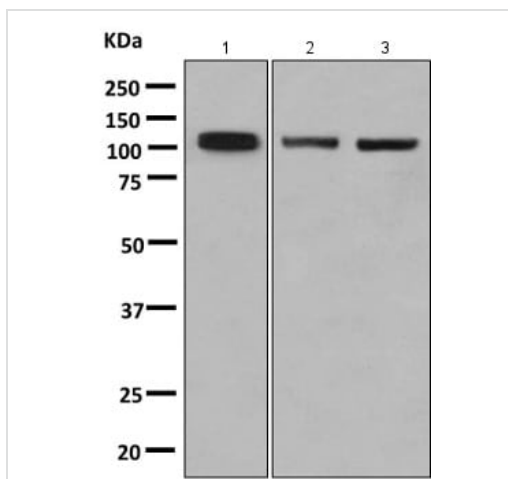
Immunofluorescent analysis of Jurkat cells labeling Kinesin Heavy Chain 2 with ab154868 at 1/100.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)] (ab154868)

Immunohistochemical analysis of paraffin-embedded Human thyroid carcinoma labeling Kinesin Heavy Chain 2 with ab154868 at 1/50.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)] (ab154868)

All lanes : Anti-Kinesin Heavy Chain 2 antibody [EPR10740(B)] (ab154868) at 1/1000 dilution

Lane 1 : Human fetal brain tissue lysate

Lane 2 : Jurkat cell lysate

Lane 3 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 187 kDa

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-Kinesin Heavy Chain 2 antibody [EPR10740(B)]
(ab154868)

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

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