

Product datasheet

Anti-eIF2B3 antibody [1H3] ab171093

6 Images

Overview

Product name	Anti-eIF2B3 antibody [1H3]
Description	Mouse monoclonal [1H3] to eIF2B3
Host species	Mouse
Tested applications	Suitable for: IHC-P, WB, IP, ICC/IF
Species reactivity	Reacts with: Rat, Human
Immunogen	Recombinant full length protein corresponding to Human eIF2B3. Produced in HEK293T cells. Database link: Q9NR50
Positive control	HeLa, MCF7, K562, U2OS or NRK lysate.
General notes	<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 Abpromise guaranteed for.</p> <p>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.</p> <p>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.</p> <p>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.</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

Preservative: 0.05% Sodium azide
Constituents: 0.1% BSA, 30% Glycerol (glycerin, glycerine), 69% PBS

Purity

Protein A purified

Clonality

Monoclonal

Clone number

1H3

Isotype

IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab171093** 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		1/100 - 1/200.
WB		1/1000. Predicted molecular weight: 50 kDa.
IP		Use at µg/mg of lysate. 3µg per 500µg lysate
ICC/IF		1/10 - 1/100.

Target

Function

Catalyzes the exchange of eukaryotic initiation factor 2-bound GDP for GTP.

Involvement in disease

Defects in EIF2B3 are a cause of leukodystrophy with vanishing white matter (VWM) [MIM:603896]. VWM is a leukodystrophy that occurs mainly in children. Neurological signs include progressive cerebellar ataxia, spasticity, inconstant optic atrophy and relatively preserved mental abilities. The disease is chronic-progressive with, in most individuals, additional episodes of rapid deterioration following febrile infections or minor head trauma. While childhood onset is the most common form of the disorder, some severe forms are apparent at birth. A severe, early-onset form seen among the Cree and Chippewayan populations of Quebec and Manitoba is called Cree leukoencephalopathy. Milder forms may not become evident until adolescence or adulthood. Some females with milder forms of the disease who survive to adolescence exhibit ovarian dysfunction. This variant of the disorder is called ovarioleukodystrophy.

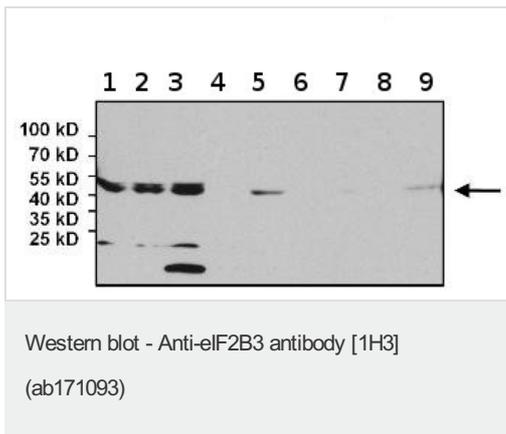
Sequence similarities

Belongs to the eIF-2B gamma/epsilon subunits family.

Form

It localizes to the cytosol.

Images



All lanes :

Lane 1 : MCF7 whole cell lysate

Lane 2 : HeLa whole cell lysate

Lane 3 : K562 whole cell lysate

Lane 4 : Jurkat whole cell lysate

Lane 5 : U2OS whole cell lysate

Lane 6 : HepG2 whole cell lysate

Lane 7 : C2C12 whole cell lysate

Lane 8 : NIH3T3 whole cell lysate

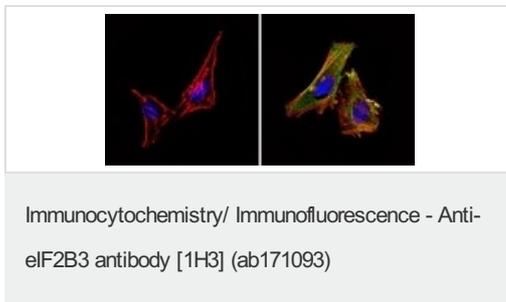
Lane 9 : NRK whole cell lysate

Lysates/proteins at 80 µg per lane.

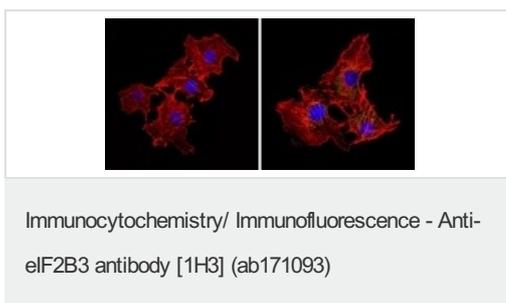
Secondary

All lanes : goat anti-mouse-HRP at 1/20000 dilution

Predicted band size: 50 kDa

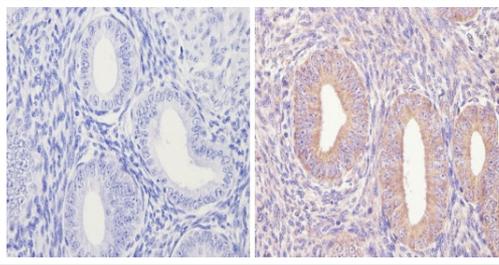


Immunofluorescent analysis of eIF2B3 (green) showing staining in the cytoplasm of HeLa cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an eIF2B3 monoclonal antibody (ab171093) in 3% BSA-PBS at a dilution of 1:50 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



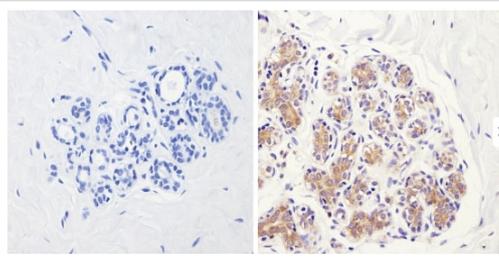
Immunofluorescent analysis of eIF2B3 (green) showing staining in the cytoplasm of COS7 cells (right) compared to a negative control without primary antibody (left). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with an eIF2B3 monoclonal antibody (ab171093) in 3% BSA-PBS at a dilution of 1:50 and incubated overnight at 4°C in a humidified chamber. Cells were washed with PBST and

incubated with a DyLight-conjugated secondary antibody in PBS at room temperature in the dark. F-actin (red) was stained with a fluorescent red phalloidin and nuclei (blue) were stained with Hoechst or DAPI. Images were taken at a magnification of 60x.



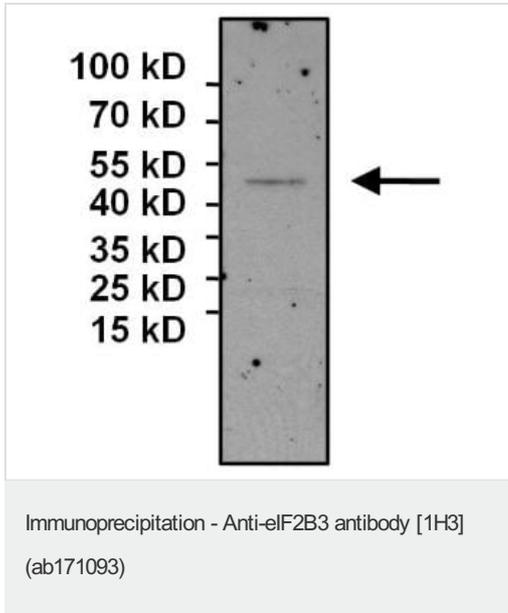
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2B3 antibody [1H3] (ab171093)

ab171093 staining eIF2B3 in the cytoplasm of Human uterus tissue (right) compared with a negative control in the absence of primary antibody (left) by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS. Tissue sections were incubated with the primary antibody (1:100 in 3% BSA-PBS) overnight at 4°C. A HRP-conjugated anti-mouse was used as the secondary antibody, followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2B3 antibody [1H3] (ab171093)

ab171093 staining eIF2B3 in the cytoplasm of Human breast tissue (right) compared with a negative control in the absence of primary antibody (left) by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Tissues were blocked in 3% H₂O₂-methanol for 15 min at room temperature, washed with ddH₂O and PBS. Tissue sections were incubated with the primary antibody (1:200 in 3% BSA-PBS) overnight at 4°C. A HRP-conjugated anti-mouse was used as the secondary antibody, followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunoprecipitation of U2OS cells labeling eIF2B3 with ab171093 at 3µg per 500µg lysate.

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