abcam

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, African green monkey
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	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

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

The Abpromise guarantee 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 an assay dependent concentration. 3µg per 500µg lysate
ICC/IF		1/10 - 1/100.

Target

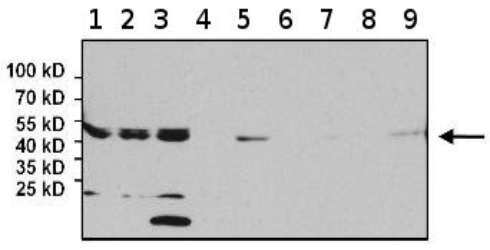
Function Catalyzes the exchange of eukaryotic initiation factor 2-bound GDP for GTP.

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



Western blot - Anti-eIF2B3 antibody [1H3] (ab171093)

All lanes :

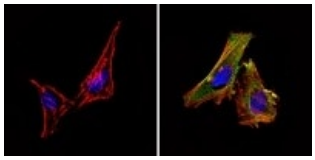
Lane 1 : MCF7 whole cell lysate
Lane 2 : HeLa whole cell lysate
Lane 3 : K562 whole cell lysate
Lane 4 : Jurkat whole cell lysate
Lane 5 : U2OS whole cell lysate
Lane 6 : HepG2 whole cell lysate
Lane 7 : C2C12 whole cell lysate
Lane 8 : NIH3T3 whole cell lysate
Lane 9 : NRK whole cell lysate

Lysates/proteins at 80 µg per lane.

Secondary

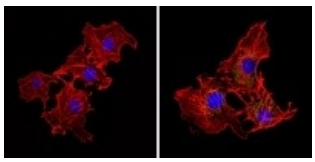
All lanes : goat anti-mouse-HRP at 1/20000 dilution

Predicted band size: 50 kDa



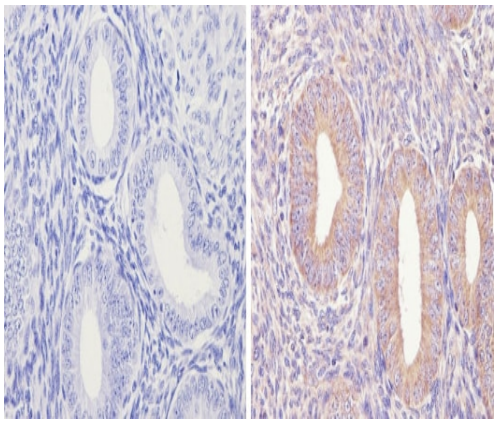
Immunocytochemistry/ Immunofluorescence - Anti-eIF2B3 antibody [1H3] (ab171093)

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 4ºC 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.



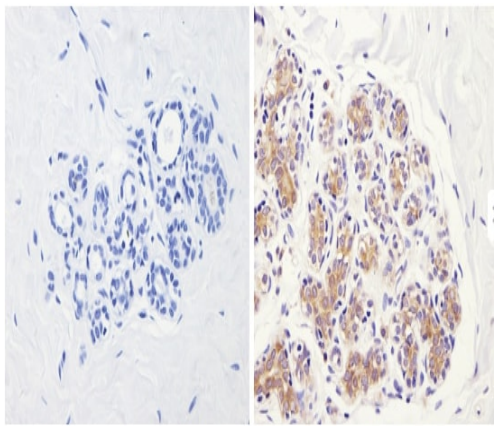
Immunocytochemistry/ Immunofluorescence - Anti-eIF2B3 antibody [1H3] (ab171093)

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 4ºC 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.



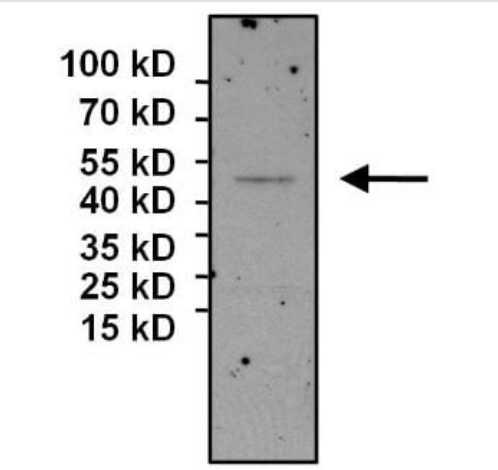
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-eIF2B3 antibody [1H3] (ab171093)

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 - Anti-eIF2B3 antibody [1H3] (ab171093)

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

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