abcam

Product datasheet

Anti-Pan Trk antibody [EPR17341] ab181560

Recombinant RabMAb

★★★★★ 1 Abreviews 21 References 10 Images

Overview

Product name	Anti-Pan Trk antibody [EPR17341]
Description	Rabbit monoclonal [EPR17341] to Pan Trk
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Chicken ⚠
Immunogen	Synthetic peptide within Human Pan Trk aa 800 to the C-terminus. The exact sequence is proprietary. Database link: Q16620
Positive control	WB: Human fetal brain and cerebellum lysates, Mouse and Rat brain lysates. IHC-P: Human astrocytoma and cerebral cortex tissue, Mouse cerebral cortex tissue, Rat cerebral cortex tissue. ICC/IF: Neuro-2a cells.
General notes	This is the **Research Use Only (RUO) antibody** of the clone that has been used in the *in vitro* diagnostic VENTANA pan-TRK (EPR17341) assay (an immunohistochemistry assay). This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

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: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17341
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab181560** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

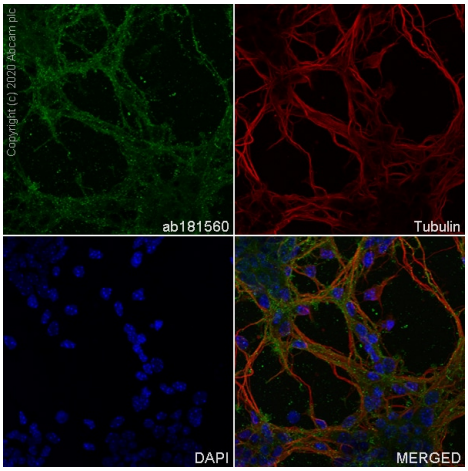
Application	Abreviews	Notes
ICC/IF		1/250.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB	★★★★★	1/10000. Detects a band of approximately 30,140 kDa (predicted molecular weight: 92 kDa).

Target

Relevance

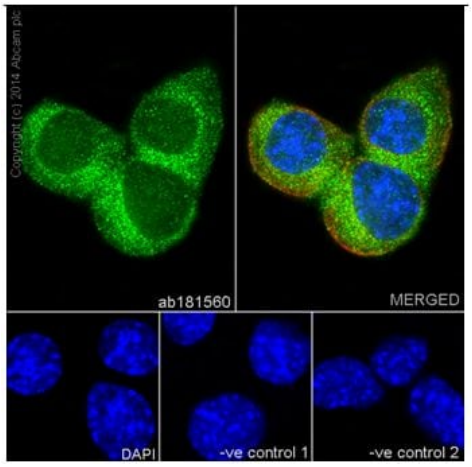
Family of neurotrophic tyrosine kinase (NTRK1/2/3) genes which encode TrkA, TrkB and TrkC protein kinases. The three family members are activated by different neurotrophins: TrkA is activated by Nerve growth factor (NGF), TrkB by Brain-derived neurotrophic factor (BDNF) or neurotrophin-4 (NT-4) and TrkC by NT-3. Neurotrophin signalling activates cellular pathways involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. Localization TrkA: Cell membrane. Early endosome membrane. Late endosome membrane. Internalized to endosomes upon binding of NGF or NT-3 and further transported to the cell body via a retrograde axonal transport. Localized at cell membrane and early endosomes before nerve growth factor (NGF) stimulation. Recruited to late endosomes after NGF stimulation. Colocalized with RAPGEF2 at late endosomes (By similarity). TrkB: Membrane. TrkC: Membrane.

Images



Immunocytochemistry/ Immunofluorescence - Anti-Pan Trk antibody [EPR17341] (ab181560)

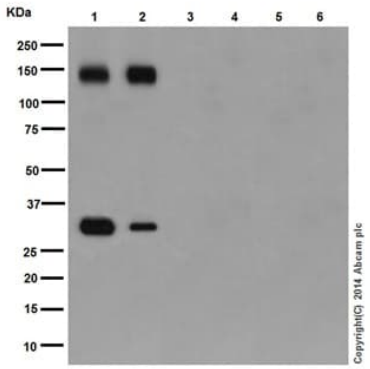
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized mouse primary neural mix culture cells labelling Pan Trk with ab181560 at 1:100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1:1000 dilution (Green). Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection. ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1:200 dilution (Red). The Nuclear counterstain was DAPI (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% tritonX-100 permeabilized Neuro-2a (Mouse neuroblastoma cells) cells labeling Pan Trk with ab181560 at 1/250 dilution. Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) at 1/400 dilution was used as the secondary antibody (green). Confocal image showing cytoplasmic staining on Neuro-2a cells is shown. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (Tubulin mouse mAb) at 1/500 and ab150120 (Alexa Fluor® 594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows;
1. ab181560 at 1/250 dilution followed by ab150120 (Goat anti mouse IgG (Alexa Fluor® 594)) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution followed by ab150077 (Goat anti rabbit IgG (Alexa Fluor® 488)) at 1/400 dilution.



Western blot - Anti-Pan Trk antibody [EPR17341] (ab181560)

All lanes : Extraction Buffer (ab191560) at 1/10000 dilution

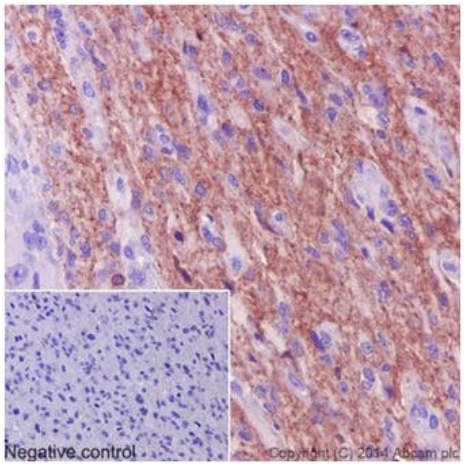
Lane 1 : Mouse brain lysates
Lane 2 : Rat brain lysates
Lane 3 : Mouse kidney lysates
Lane 4 : Mouse spleen lysates
Lane 5 : Rat kidney lysates
Lane 6 : Rat spleen lysates

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

Predicted band size: 92 kDa

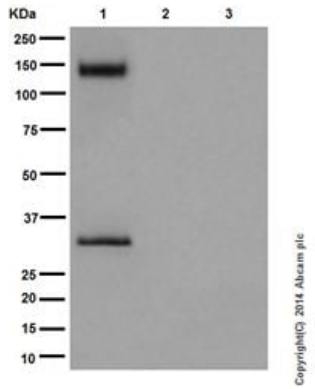
TrkB is abundantly expressed in the central and peripheral nervous system. Mouse kidney, mouse spleen, rat kidney and rat spleen are used as negative control.
The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunohistochemical analysis of paraffin-embedded Human astrocytoma tissue labeling Pan Trk with ab181560 at 1/500 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Astrocytoma cells show strong cytoplasmic staining. Counter stained with Hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0

Negative control: Using PBS instead of primary ab, secondary ab is prediluted HRP Polymer for Rabbit/Mouse IgG.



Western blot - Anti-Pan Trk antibody [EPR17341] (ab181560)

All lanes : Anti-Pan Trk antibody [EPR17341] (ab181560) at 1/10000 dilution

Lane 1 : Human fetal brain lysates
Lane 2 : Human fetal heart lysates
Lane 3 : Human fetal spleen lysates

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/1000 dilution

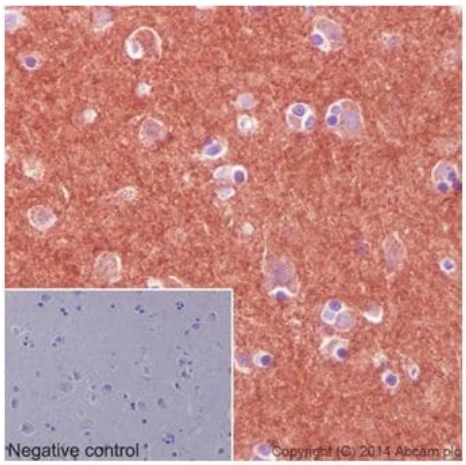
Predicted band size: 92 kDa

TrkB is abundantly expressed in the central and peripheral nervous systems,

human fetal heart and human fetal spleen are used as negative controls.

The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.

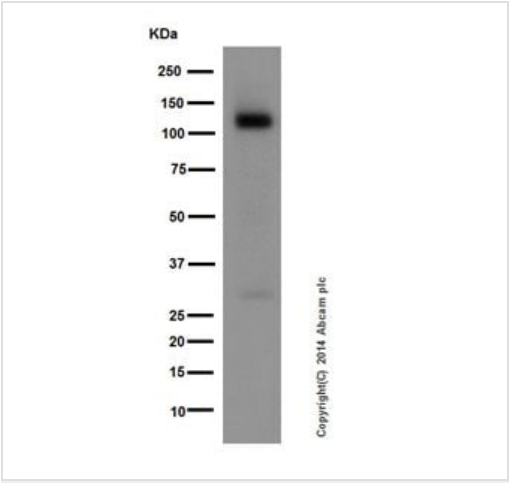
Blocking/dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunohistochemical analysis of paraffin-embedded Human cerebral cortex tissue labeling Pan Trk with ab181560 at 1/500 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Cytoplasmic staining is observed on neurons of human cerebral cortex. Counter stained with Hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.

Negative control: Using PBS instead of primary ab, secondary ab is prediluted HRP Polymer for Rabbit/Mouse IgG.



Western blot - Anti-Pan Trk antibody [EPR17341] (ab181560)

Anti-Pan Trk antibody [EPR17341] (ab181560) at 1/10000 dilution + Human cerebellum lysates at 10 µg

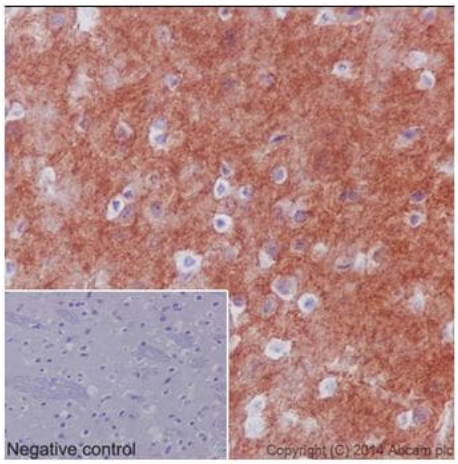
Secondary

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 92 kDa

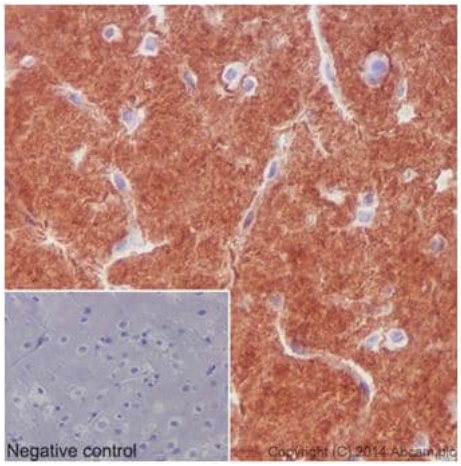
TrkB is abundantly expressed in the central and peripheral nervous system. The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.

Blocking/dilution buffer: 5% NFDM/TBST.



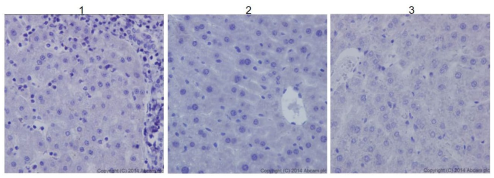
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunohistochemical analysis of paraffin-embedded Mouse cerebral cortex tissue labeling Pan Trk with ab181560 at 1/500 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Cytoplasmic staining is observed on neurons of mouse cerebral cortex. Counter stained with Hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.
Negative control: Using PBS instead of primary ab, secondary ab is prediluted HRP Polymer for Rabbit/Mouse IgG.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunohistochemical analysis of paraffin-embedded Rat cerebral cortex tissue labeling Pan Trk with ab181560 at 1/500 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. Cytoplasmic staining is observed on neurons of Rat cerebral cortex. Counter stained with Hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.
Negative control: Using PBS instead of primary ab, secondary ab is prediluted HRP Polymer for Rabbit/Mouse IgG.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

Immunohistochemical analysis of paraffin-embedded Human (Panel 1), Mouse (Panel 2) or Rat (Panel 3) liver tissue labeling Pan Trk with ab181560 at 1/500 dilution, followed by Anti-Rabbit HRP (ab97051) at 1/500 dilution. The staining is negative on normal Human liver. Counter stained with Hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0.
Negative control: Using PBS instead of primary ab, secondary ab is prediluted HRP Polymer for Rabbit/Mouse IgG.

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