


Product datasheet

Anti-Pan Trk antibody [EPR17341] ab181560

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [36 References](#) [14 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. This information is proprietary to Abcam and/or its suppliers.
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	<p>This is the Research Use Only (RUO) antibody of the clone that has been used in the <i>in vitro</i> diagnostic VENTANA pan-TRK (EPR17341) assay (an immunohistochemistry assay).</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>

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

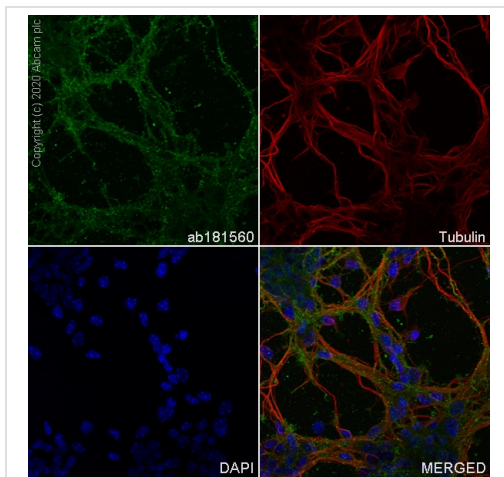
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181560 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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)	1/10000. Detects a band of approximately 30,140 kDa (predicted molecular weight: 92 kDa).

Target

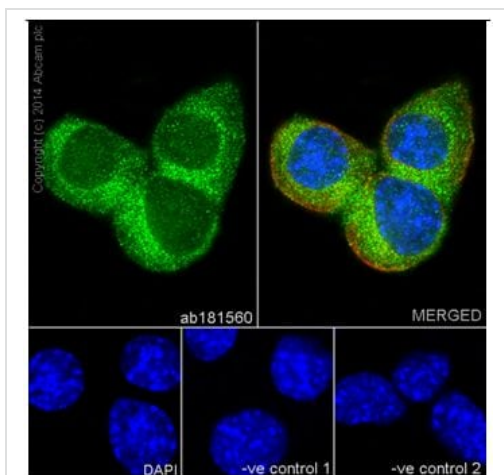
Relevance Family of neurotrophic tyrosine kinase (NTRK1/2/3) genes which encode TrkA, TrkB and TrkC protein kinases. The three family members are activated by different neurotrophins: TrkA is activated by Nerve growth factor (NGF), TrkB by Brain-derived neurotrophic factor (BDNF) or neurotrophin-4 (NT-4) 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).

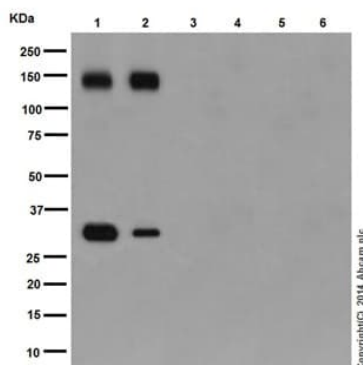


Immunocytochemistry/ Immunofluorescence - Anti-Pan Trk antibody [EPR17341] (ab181560)

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.

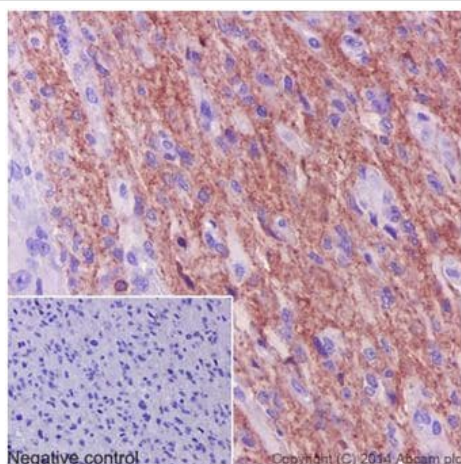
Secondary

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.

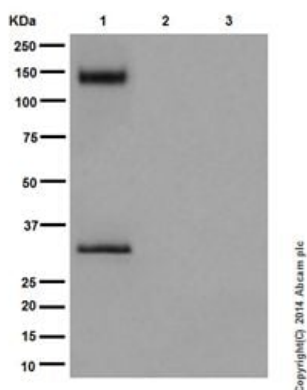
The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.



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 performed 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

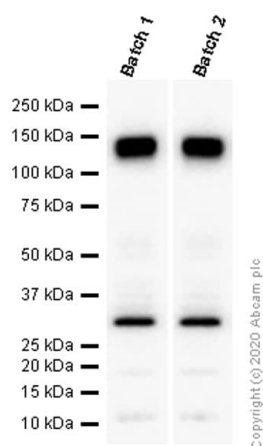
Predicted band size: 92 kDa

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

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

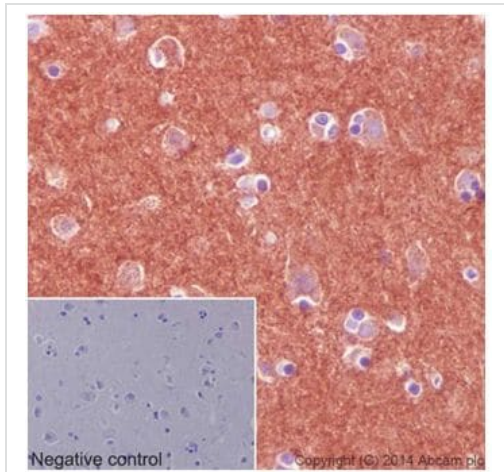
The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.

Blocking/dilution buffer: 5% NFDM/TBST.



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

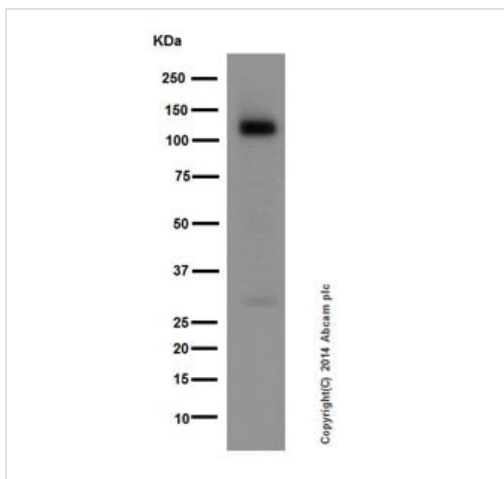
Different batches of ab181560 were tested on human brain lysate at 1.5 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 30,140 kDa.



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 performed 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

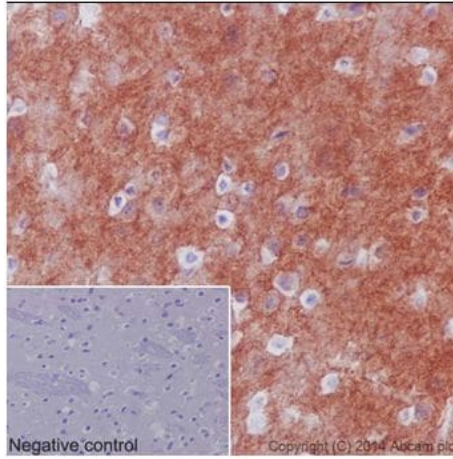
Secondary

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

Predicted band size: 92 kDa

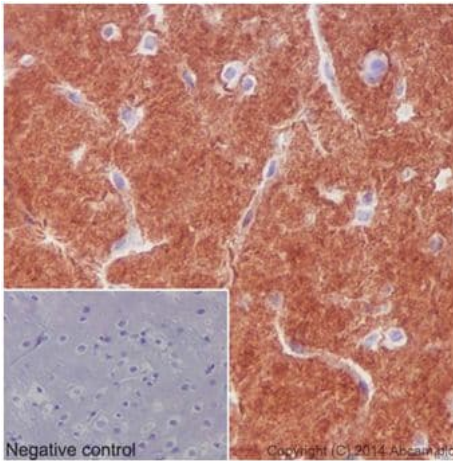
TrkB is abundantly expressed in the central and peripheral nervous system. The 30KDa band is an intracellular fragment TrkB-ICD, and the 140KDa observed MW which is higher than the predicted one is due to the glycosylation modification.

Blocking/dilution buffer: 5% NFDm/TBST.



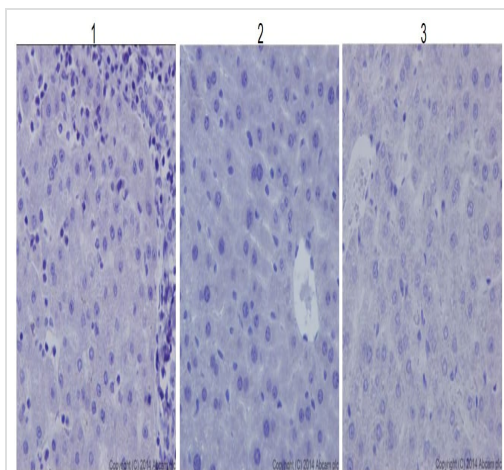
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Pan Trk antibody [EPR17341] (ab181560)

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 performed 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 performed 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 performed 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.

Tissue Microarray (TMA) data for ab181560					
Mouse normal tissue samples			Rat normal tissue samples		
Mouse cardiac muscle	x	Mouse pancreas	x	Rat cardiac muscle	x
Mouse cerebrum	✓	Mouse skeletal muscle	x	Rat cerebrum	✓
Mouse colon	x	Mouse skin	x	Rat colon	x
Mouse kidney	x	Mouse spleen	x	Rat kidney	x
Mouse liver	x	Mouse stomach	x	Rat liver	x
Mouse lung	x	Mouse testis	x	Rat lung	x
				Rat pancreas	x
				Rat skeletal muscle	x
				Rat skin	x
				Rat spleen	x
				Rat stomach	x
				Rat testis	x

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


Tissue Microarrays stained for "Anti-Pan Trk antibody [EPR17341]" using "ab181560" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab181560 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Tissue Microarray (TMA) data for ab181560					
Human normal tissue samples			Human malignant tissue samples		
Human cardiac muscle	x	Human placenta	x	Human glioma	x
Human cerebrum	✓	Human skeletal muscle	x	Human hepatocellular carcinoma	x
Human colon	x	Human skin	x	Human lung carcinoma	x
Human endometrium	x	Human spleen	x	Human ovarian carcinoma	x
Human kidney	x	Human stomach	x	Human pancreatic carcinoma	x
Human liver	x	Human testis	x	Human prostatic hyperplasia	x
Human lung	x	Human thyroid	x	Human thyroid carcinoma	x
Human mammary gland	x	Human tonsil	x		
Human pancreas	x				


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

Tissue Microarrays stained for "Anti-Pan Trk antibody [EPR17341]" using "ab181560" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab181560 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).


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-Pan Trk antibody [EPR17341] (ab181560)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors