

## Product datasheet

# Anti-PDGFR alpha antibody [EPR22059-270] ab203491

**KO VALIDATED** Recombinant RabMAB

★★★★☆ **4 Abreviews** **22 References** **16 Images**

### Overview

<b>Product name</b>	Anti-PDGFR alpha antibody [EPR22059-270]
<b>Description</b>	Rabbit monoclonal [EPR22059-270] to PDGFR alpha
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF, Flow Cyt, IP, Indirect ELISA, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: SH-SY5Y, A-204, MG-63, A-172, C6 and NIH/3T3 whole cell lysates. IHC-P: Mouse E14.5 lung, E14.5 intervertebral disc and uterus tissues; Rat E14.5 intervertebral disc tissue and Human endometrium tissue. ICC/IF: SH-SY5Y and A-204 cells. Flow Cyt: NIH/3T3 and A-204 cells. IP: A-204 whole cell lysate IHC-Fr: Human kidney tissue sections.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR22059-270

Isotype

IgG

## Applications

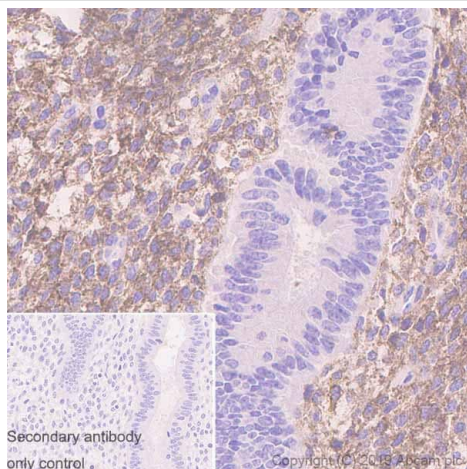
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab203491 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 150, 180 kDa (predicted molecular weight: 122 kDa).
IHC-P	★★★★★ (1)	Use a concentration of 0.26 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	1/500.
Flow Cyt		1/50.
IP		1/30.
Indirect ELISA		Use a concentration of 1 µg/ml.
IHC-Fr	★★★★★ (1)	1/500.

## Target

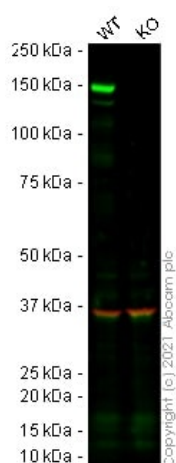
<b>Function</b>	Receptor that binds both PDGFA and PDGFB and has a tyrosine-protein kinase activity.
<b>Tissue specificity</b>	Expressed in primary and metastatic colon tumors and in normal colon tissue. Tumors may express a different isoform to that found in normal tissue.
<b>Involvement in disease</b>	Note=A chromosomal aberration involving PDGFRA is found in some cases of hypereosinophilic syndrome. Interstitial chromosomal deletion del(4)(q12q12) causes the fusion of FIP1L1 and PDGFRA (FIP1L1-PDGFR A).
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 5 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.
<b>Cellular localization</b>	Membrane.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

Immunohistochemical analysis of paraffin-embedded human endometrium tissue labeling PDGFR alpha with ab203491 at 0.26 µg/mL followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining in human endometrium was observed. The section was incubated with ab203491 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Western blot - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

**All lanes :** Anti-PDGFR alpha antibody [EPR22059-270] (ab203491) at 1/1000 dilution

**Lane 1 :** Wild-type SH-SY5Y cell lysate

**Lane 2 :** PDGFRA knockout SH-SY5Y cell lysate

Lysates/proteins at 40 µg per lane.

Performed under reducing conditions.

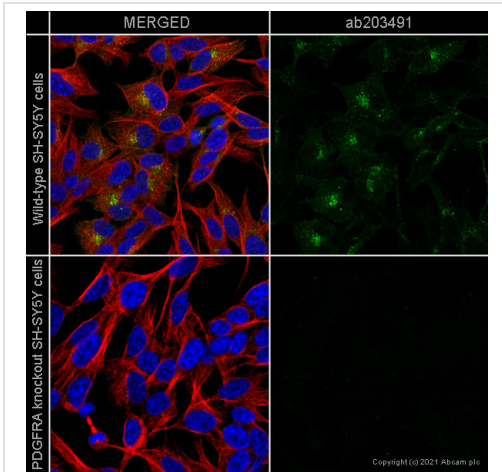
**Predicted band size:** 122 kDa

**Observed band size:** 150 kDa

**Lanes 1 - 2:** Merged signal (red and green). Green - ab203491 observed at 150 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab203491 was shown to react with PDGFR alpha in wild-type SH-SY5Y cells in Western blot with loss of signal observed in PDGFRA knockout cell line **ab275335** (knockout cell lysate **ab275522**). Wild-type SH-SY5Y and PDGFRA knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween<sup>®</sup>) before incubation with ab203491 and **ab8245** (Mouse

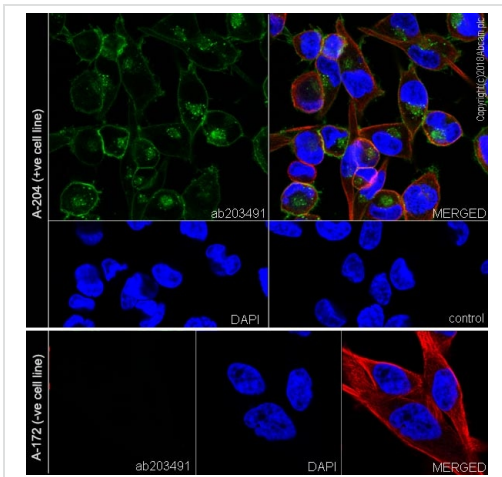
anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

ab203491 staining PDGFR alpha in wild-type SH-SY5Y cells (top panel) and PDGFRA knockout SH-SY5Y cells (**ab275335**) (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab203491 at 1 µg/ml concentration and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

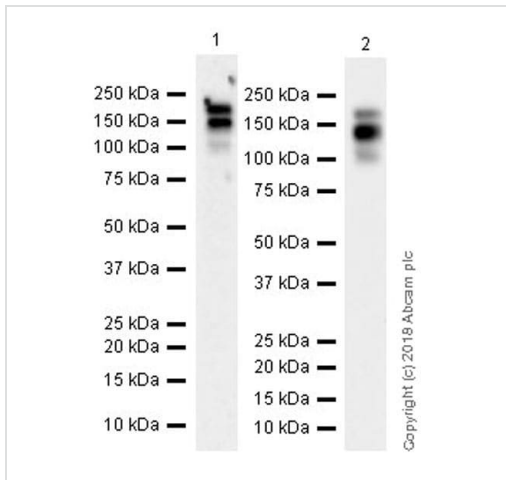
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A-204 (human muscle rhabdomyosarcoma cell line) cells and A-172 (human brain glioblastoma cell line) labeling PDGFR alpha with ab203491 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green).

Confocal image showing membranous and cytoplasmic staining in A-204 cell line.

**Negative control:** A-172 (PMID:8425771).

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Western blot - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

**All lanes** : Anti-PDGFR alpha antibody [EPR22059-270]  
(ab203491) at 1/1000 dilution

**Lane 1** : C6 (rat glial tumor cell line) whole cell lysate

**Lane 2** : NIH/3T3 (mouse embryo fibroblast cell line) whole cell  
lysate

Lysates/proteins at 10 µg per lane.

### Secondary

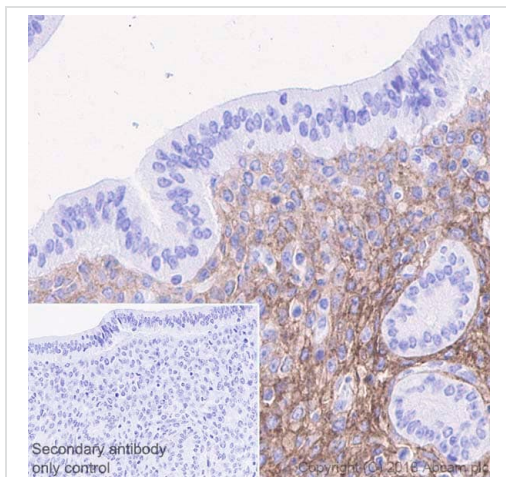
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000  
dilution

**Predicted band size:** 122 kDa

**Observed band size:** 150,180 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

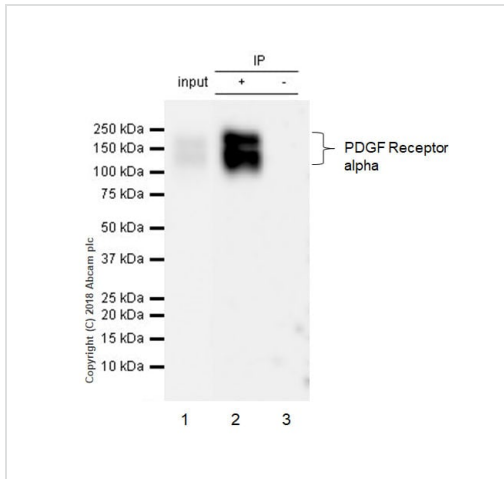
**Exposure time** : Lane 1: 3 minutes; Lane 2: 59 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

Immunohistochemical analysis of paraffin-embedded mouse uterus  
tissue labeling PDGFR alpha with ab203491 at 1/500 dilution,  
followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive  
staining on interstitial cells of mouse uterus (PMID: 25788664).  
Counter stained with hematoxylin. Heat mediated antigen retrieval  
was performed using Tris/EDTA buffer pH 9.0 before commencing  
with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary  
antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP)  
Ready to use.



Immunoprecipitation - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

PDGFR alpha was immunoprecipitated from 0.35 mg of A-204 (human muscle rhabdomyosarcoma cell line) whole cell lysate with ab203491 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab203491 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution.

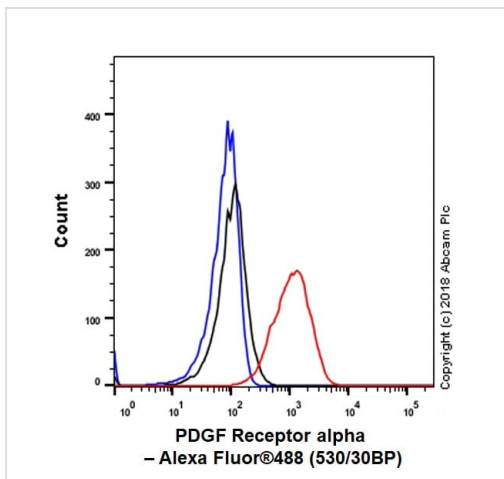
Lane 1: A-204 whole cell lysate 10 µg (Input).

Lane 2: ab203491 IP in A-204 whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab203491 in A-204 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 50 seconds.

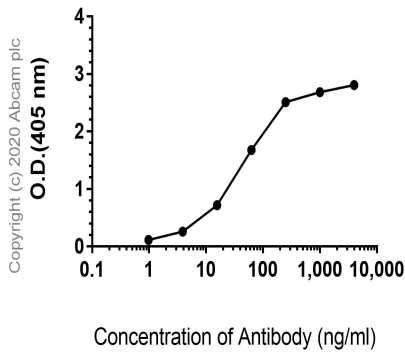


Flow Cytometry - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

Flow cytometric analysis of NIH/3T3 (mouse embryo fibroblast cell line) cell line labeling PDGFR alpha with ab203491 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control ([ab172730](#)) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) at 1/2000 dilution was used as the secondary antibody.

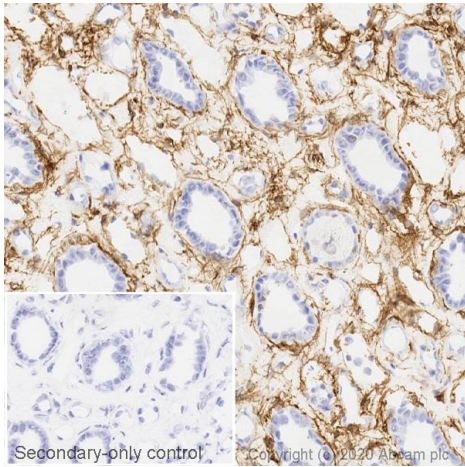
Gated on viable cells.

**Indirect ELISA antibody dose-response curve  
antigen at 1000 ng/ml**



Indirect ELISA - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

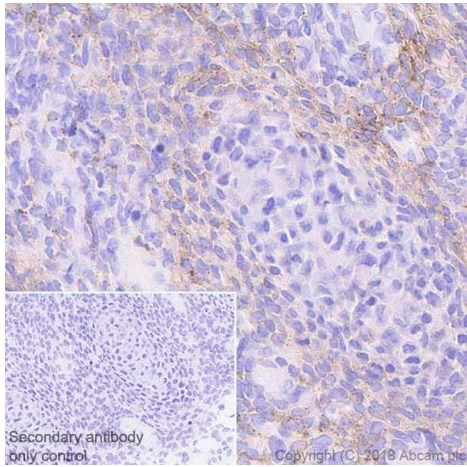
Indirect ELISA using ab203491 at varying antibody concentrations (4000~0 ng/ml) and Human PDGF Receptor alpha antigen at 1000 ng/ml. Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution was used as a secondary antibody.



Immunohistochemistry (Frozen sections) - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

IHC image of PDGFR alpha staining in a section of frozen normal human kidney performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab203491, 1/500 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

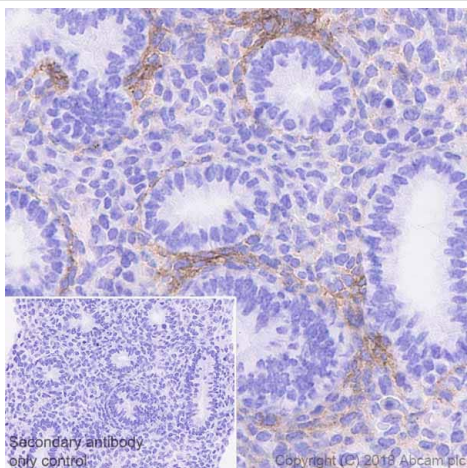
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

Immunohistochemical analysis of paraffin-embedded rat E14.5 intervertebral disc tissue labeling PDGFR alpha with ab203491 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in mesenchymal cells of rat E14.5 intervertebral disc (PMID: 9199674). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

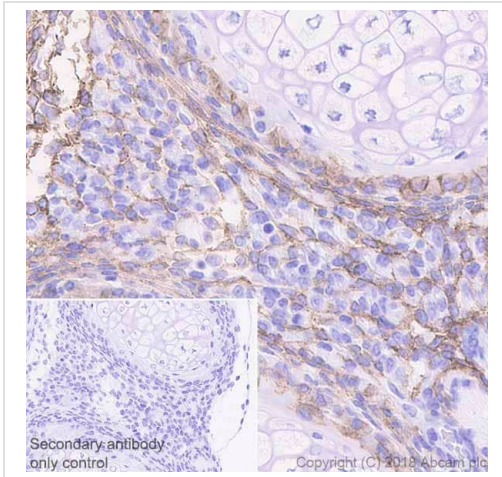


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

Immunohistochemical analysis of paraffin-embedded mouse E14.5 lung tissue labeling PDGFR alpha with ab203491 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in the mesenchyme of mouse E14.5 lung (PMID: 8681381). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

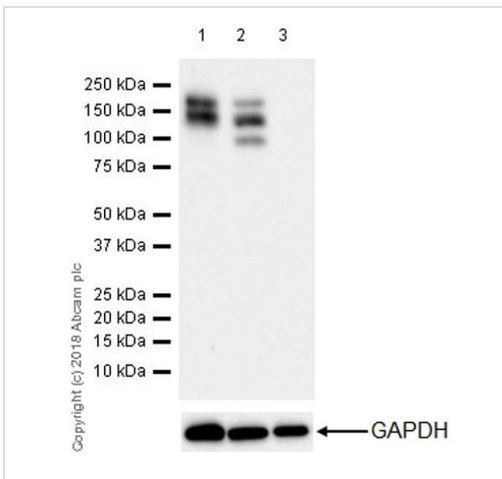




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

Immunohistochemical analysis of paraffin-embedded mouse E14.5 intervertebral disc tissue labeling PDGFR alpha with ab203491 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining in mesenchymal cells of mouse E14.5 intervertebral disc (PMID: 9199674). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.



Western blot - Anti-PDGFR alpha antibody [EPR22059-270] (ab203491)

**All lanes** : Anti-PDGFR alpha antibody [EPR22059-270] (ab203491) at 1/1000 dilution

**Lane 1** : A-204 (Human muscle rhabdomyosarcoma cell line) whole cell lysate

**Lane 2** : MG-63 (human osteosarcoma fibroblast cell line) whole cell lysate

**Lane 3** : A-172 (human brain glioblastoma cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

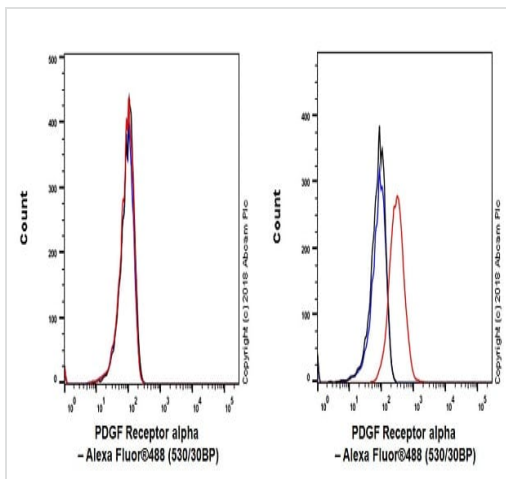
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 122 kDa

**Observed band size:** 150,180 kDa

**Exposure time:** 92 seconds

Blocking/Dilution buffer: 5% NFDN/TBST.



Flow cytometric analysis of A-172 (human brain glioblastoma cell line, left) and A-204 (human muscle rhabdomyosarcoma cell line, right) cell lines labeling PDGFR alpha with ab203491 at 1/50 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) at 1/2000 dilution was used as the secondary antibody.

Gated on viable cells.

Flow Cytometry - Anti-PDGFR alpha antibody  
[EPR22059-270] (ab203491)

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-PDGFR alpha antibody [EPR22059-270]  
(ab203491)

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

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