# abcam

# Product datasheet

# Anti-Robo1 antibody [EPR23699-159] ab256791



ייבע RabMAb

#### 画像数9 2 References

#### 製品の概要

製品名 Anti-Robo1 antibody [EPR23699-159]

製品の詳細 Rabbit monoclonal [EPR23699-159] to Robo1

由来種 Rabbit

アプリケーション 適用あり: WB, Flow Cyt, IP

適用なし: ICC/IF,IHC-Fr or IHC-P

種交差性 交差種: Mouse, Rat, Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: HeLa, HAP1 and HepG2 whole cell lysates; Mouse E14.5 brain and C57 E18 brain tissue

> lysates; Rat E14 brain tissue lysate; His-tagged human Robo1 recommbinant protein (aa660-897(Q883R)). IP: Mouse E14.5 brain tissue lysate and HepG2 whole cell lysate. Flow cyt: HeLa

cells.

特記事項 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**.

## 製品の特性

製品の状態 Liquid

保存方法 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.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

精製度 Protein A purified

ポリモノ モノクローナル

クローン名

EPR23699-159

アイソタイプ

ΙgG

# アプリケーション

**The Abpromise guarantee Abpromise保証は、**次のテスト済みアプリケーションにおけるab256791の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000. Detects a band of approximately 120, 130, 250 kDa (predicted molecular weight: 181 kDa).
Flow Cyt		1/500.
IP		1/30.

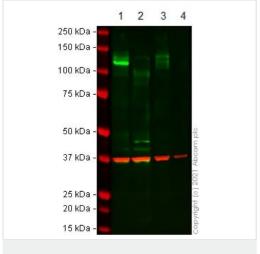
追加情報

Is unsuitable for ICC/IF,IHC-Fr or IHC-P.

# ターゲット情報

機能	Receptor for SLIT1 and SLIT2 which are thought to act as molecular guidance cue in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development. In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex. May be required for lung development.	
組織特異性	Widely expressed, with exception of kidney.	
配列類似性	Belongs to the immunoglobulin superfamily. ROBO family. Contains 3 fibronectin type-Ill domains. Contains 5 lg-like C2-type (immunoglobulin-like) domains.	
翻訳後修飾	Ubiquitinated. May be deubiquitinated by USP33.	
細胞内局在	Membrane.	

# 画像



Western blot - Anti-Robo1 antibody [EPR23699-159] (ab256791)

**All lanes :** Anti-Robo1 antibody [EPR23699-159] (ab256791) at 1/1000 dilution

Lane 1: Wild-type HAP1 cell lysate

Lane 2: ROBO1 CRISPR/Cas9 edited HAP1 cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : MCF7 cell lysate

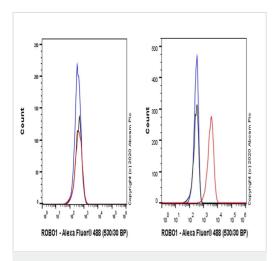
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

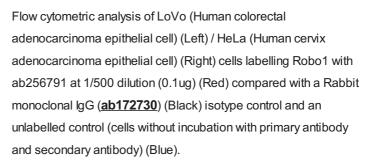
**Predicted band size:** 181 kDa **Observed band size:** 120 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab256791 observed at 120 kDa. Red - loading control, <u>ab8245</u> (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab256791 was shown to react with Robo1 in western blot. The band observed in the CRISPR/Cas9 edited lysate lane below 120 kDa is likely to represent a truncated form. This has not been investigated further. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween<sup>®</sup>) before incubation with ab256791 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<sup>®</sup> 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



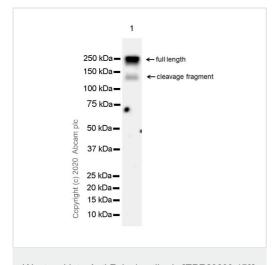
Flow Cytometry - Anti-Robo1 antibody [EPR23699-159] (ab256791)



Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488, <u>ab150077</u>) at 1/2000 dilution was used as the secondary antibody.

Negative control: LoVo(PMID: 16740745).

Gated on viable cells.



Western blot - Anti-Robo1 antibody [EPR23699-159] (ab256791)

Anti-Robo1 antibody [EPR23699-159] (ab256791) at 1/1000 dilution + HeLa whole cell lysate at 20  $\mu g$ 

### Secondary

VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

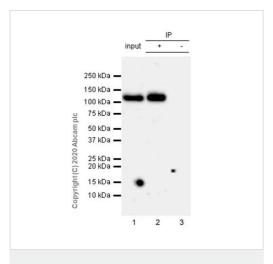
**Predicted band size:** 181 kDa **Observed band size:** 130,250 kDa

Exposure time: 92 seconds

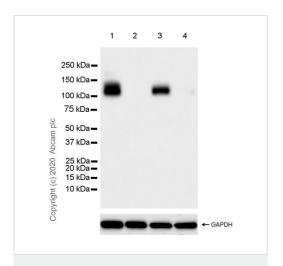
Buffer and concentration: 5% NFDM/TBST

250 kDa full length band and 130 kDa cleavage fragment band were ovserved.

Freshly prepared lysate was used in this blot.



Immunoprecipitation - Anti-Robo1 antibody [EPR23699-159] (ab256791)



Western blot - Anti-Robo1 antibody [EPR23699-159] (ab256791)

Robo1 was immunoprecipitated from 0.35 mg HepG2 whole cell lysate with ab256791 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab256791 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: HepG2 whole cell lysate 10 ug.

Lane 2: ab256791 IP in HepG2 whole cell lysate.

**Lane 3:** Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab256791 in HepG2 whole cell lysate.

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

Exposure time: 93 seconds.

**All lanes :** Anti-Robo1 antibody [EPR23699-159] (ab256791) at 1/1000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate

**Lane 2 :** LoVo (human colorectal adenocarcinoma epithelial cell) whole cell lysate

**Lane 3 :** HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate

**Lane 4 :** MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/50000 dilution

**Predicted band size:** 181 kDa **Observed band size:** 120-130 kDa

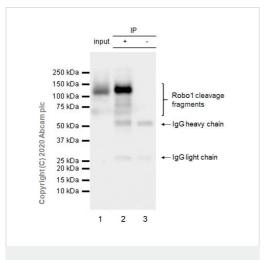
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID: 20471383, 16740745). The 120/130-kDa bands correspond to the Robo1 cleavage fragments from metalloprotease and/or gamma secretase activities (PMID: 20570941, 20471383).

**Negative control:** LoVo (PMID: 16740745); **Low expression:** MCF7 (PMID: 16740745).

Lysates used in this blot have experienced a freeze-thaw cycle.

Exposure time: 10 seconds.



Immunoprecipitation - Anti-Robo1 antibody [EPR23699-159] (ab256791)

Robo1 was immunoprecipitated from 0.35 mg Mouse E14.5 brain tissue lysate with ab256791 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab256791 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/1000 dilution.

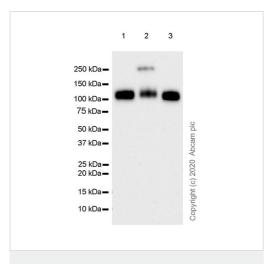
Lane 1: Mouse E14.5 brain tissue lysate 10 ug.

Lane 2: ab256791 IP in Mouse E14.5 brain tissue lysate.

**Lane 3:** Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab256791 in mouse E14.5 brain tissue lysate.

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

Exposure time: 1 second.



Western blot - Anti-Robo1 antibody [EPR23699-159] (ab256791)

**All lanes**: Anti-Robo1 antibody [EPR23699-159] (ab256791) at 1/1000 dilution

Lane 1: Mouse E14.5 brain tissue lysate

Lane 2: C57 E18 brain tissue lysate

Lane 3: Rat E14 brain tissue lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 181 kDa

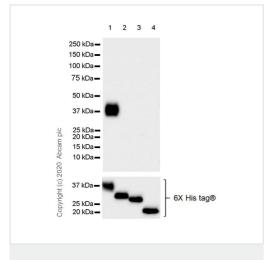
Observed band size: 120,250 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The 120 kDa band corresponds to the Robo1 cleavage fragments from metalloprotease and/or gamma secretase activities (PMID: 20570941, 20471383).

Lysates used in this blot have experienced a freeze-thaw cycle.

Exposure time: 70 seconds.



Western blot - Anti-Robo1 antibody [EPR23699-159] (ab256791)

**All lanes :** Anti-Robo1 antibody [EPR23699-159] (ab256791) at 1/1000 dilution

**Lane 1 :** His-tagged human Robo1 recommbinant protein (aa660-897(Q883R))

**Lane 2**: His-tagged human Robo2 recommbinant protein (aa621-859)

**Lane 3**: His-tagged human Robo3 recommbinant protein (aa655-892)

**Lane 4 :** His-tagged human Robo4 recommbinant protein (aa301-463)

#### Secondary

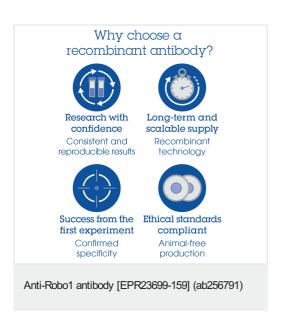
**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

**Predicted band size:** 181 kDa **Observed band size:** 38 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

These recombinant proteins were made in house. The sample loaded onto lane 1 was purified Robo1 recombinant protein expressed from a mammalian - HEK-293 expression system. The samples loaded onto lanes 2-4 were E.coil extracts containing Robo2, Robo3 or Robo4 recombinant protein respectively.

Exposure time: 26 seconds.



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