

## Product datasheet

# Anti-Eph receptor A2 antibody [EPR24711-11] ab273118

KO VALIDATED Recombinant RabMAb

3 Images

### Overview

<b>Product name</b>	Anti-Eph receptor A2 antibody [EPR24711-11]
<b>Description</b>	Rabbit monoclonal [EPR24711-11] to Eph receptor A2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB <b>Unsuitable for:</b> Flow Cyt, ICC/IF, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Does not react with:</b> Mouse, Rat
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: U-87 MG (human glioblastoma-astrocytoma epithelial cell) whole cell lysate, K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate, Wild-type HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate, PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate, A549 (human lung carcinoma epithelial cell) whole cell lysate
<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: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR24711-11
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab273118 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. Predicted molecular weight: 108 kDa.

**Application notes** Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

## Target

**Function** Receptor for members of the ephrin-A family. Binds to ephrin-A1, -A3, -A4 and -A5. Plays an important role in angiogenesis and tumor neovascularization. The recruitment of VAV2, VAV3 and PI3-kinase p85 subunit by phosphorylated EPHA2 is critical for EFNA1-induced RAC1 GTPase activation and vascular endothelial cell migration and assembly (By similarity). Induces apoptosis in a p53/TP53-independent, caspase-8-dependent manner.

**Tissue specificity** Expressed in brain and glioma tissue and glioma cell lines (at protein level). Expressed most highly in tissues that contain a high proportion of epithelial cells, e.g., skin, intestine, lung, and ovary.

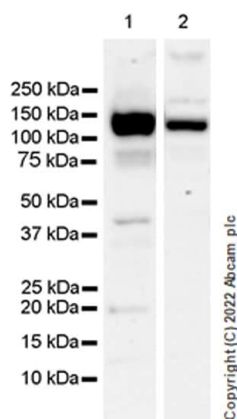
**Involvement in disease** Genetic variations in EPHA2 are the cause of susceptibility to cataract cortical age-related type 2 (ARCC2) [MIM:613020]. A developmental punctate opacity common in the cortex and present in most lenses. The cataract is white or cerulean, increases in number with age, but rarely affects vision. Defects in EPHA2 are the cause of cataract posterior polar type 1 (CTPP1) [MIM:116600]. A subcapsular opacity, usually disk-shaped, located at the back of the lens. It can have a marked effect on visual acuity.

**Sequence similarities** Belongs to the protein kinase superfamily. Tyr protein kinase family. Ephrin receptor subfamily. Contains 2 fibronectin type-III domains. Contains 1 protein kinase domain. Contains 1 SAM (sterile alpha motif) domain.

**Post-translational modifications** Activated by EFNA1 via tyrosine phosphorylation. Phosphorylated residues Tyr-588 and Tyr-594 are required for binding VAV2 and VAV3 while phosphorylated residues Tyr-735 and Tyr-930 are required for binding PI3-kinase p85 subunit. These phosphorylated residues are critical for recruitment of VAV2 and VAV3 and PI3-kinase p85 subunit which transduce downstream signaling to activate RAC1 GTPase and endothelial cell migration. They also play a critical role in transducing EPHA2 signaling in vascular endothelial cells during tumor angiogenesis.

**Cellular localization** Membrane.

## Images



Western blot - Anti-Eph receptor A2 antibody [EPR24711-11] (ab273118)

**All lanes :** Anti-Eph receptor A2 antibody [EPR24711-11] (ab273118) at 1/1000 dilution

**Lane 1 :** U-87 MG (human glioblastoma-astrocytoma epithelial cell) whole cell lysate

**Lane 2 :** K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

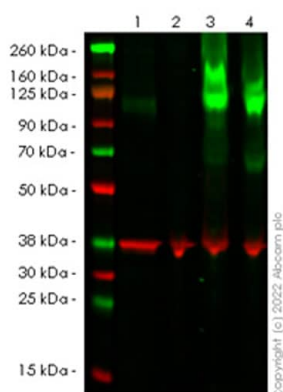
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 108 kDa

**Observed band size:** 130 kDa

**Exposure time:** 81 seconds

Blocking / Diluent buffer and concentration: 5% NFDM/TBST



Western blot - Anti-Eph receptor A2 antibody [EPR24711-11] (ab273118)

**All lanes :** Anti-Eph receptor A2 antibody [EPR24711-11] (ab273118) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate.

**Lane 2 :** Ephrin type-A receptor 2 knockout HeLa (**ab264795**) whole cell lysate.

**Lane 3 :** PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate.

**Lane 4 :** A549 (human lung carcinoma epithelial cell) whole cell lysate.

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (IRDye® 800CW) (**ab216773**) and Goat Anti-Mouse IgG H&L (IRDye® 680RD) (**ab216776**) at 1/10000 dilution

**Predicted band size:** 108 kDa

**Observed band size:** 130 kDa

**Exposure time:** 81 seconds

Blocking / Diluent buffer and concentration: Intercept<sup>®</sup> (TBS)

Blocking Buffer diluted with an equal volume of 0.1% TBS

Lanes 1-4: Merged signal (red and green). Green - ab273118 observed at 130 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab273118 Anti-Ephrin type-A receptor 2 antibody [EPR24711-11] was shown to specifically react with Ephrin type-A receptor 2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line (**ab264795**) was used. Wild-type and Ephrin type-A receptor 2 knockout samples were subjected to SDS-PAGE. ab273118 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated at 4? overnight at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.

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-Eph receptor A2 antibody [EPR24711-11]  
(ab273118)

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

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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