

Product datasheet

Anti-Eph receptor A2 antibody [RM-0051-8F21] ab73254

★★★★☆ [7 Abreviews](#) [4 References](#) [2 Images](#)

Overview

Product name	Anti-Eph receptor A2 antibody [RM-0051-8F21]
Description	Rat monoclonal [RM-0051-8F21] to Eph receptor A2
Host species	Rat
Specificity	ab73254 is specific for Eph receptor A2. It does not cross react with recombinant mouse Eph receptors A3, 4, 6, 7, 8, and Eph receptors B1, 2, 3, 4, or 6.
Tested applications	Suitable for: IHC-P, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant mouse EphA2 extracellular domain
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Constituent: PBS
Purity	Immunogen affinity purified
Purification notes	ab73254 was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat immunized with recombinant mouse EphA2 extracellular domain. The IgG fraction of culture supernatant was purified by Protein A/G affinity chromatography and lyophilized from a 0.2 µm filtered solution.
Clonality	Monoclonal
Clone number	RM-0051-8F21
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab73254 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
IHC-P		1/100 - 1/200.
Flow Cyt	★★★★★ (1)	Use 1µg for 10 ⁶ cells. ab18407 - Rat monoclonal IgG1, is suitable for use as an isotype control with this antibody.

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.

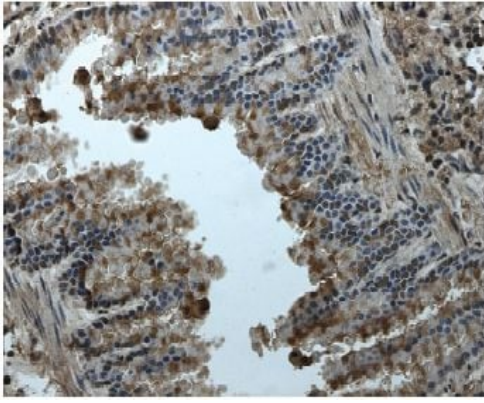
Post-translational modifications

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

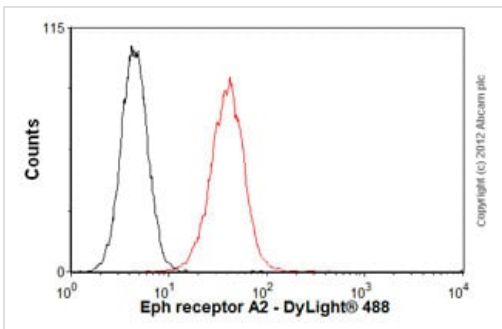
Membrane.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Eph receptor A2 antibody [RM-0051-8F21] (ab73254)

ab73254 at 1/200 dilution, staining Eph receptor A2 in mouse kidney tissue section by Immunohistochemistry (Formalin/PFA fixed paraffin-embedded sections).



Flow Cytometry - Anti-Eph receptor A2 antibody [RM-0051-8F21] (ab73254)

Overlay histogram showing A431 cells stained with ab73254 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab73254, 1 µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was goat anti-rat DyLight 488 (IgG H+L) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG1 [RTK2071] (**ab18412**, 2 µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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

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