




Product datasheet

Anti-PIKE antibody ab224118

[1 References](#) [2 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-PIKE antibody |
| Description | Rabbit polyclonal to PIKE |
| Host species | Rabbit |
| Tested applications | Suitable for: IHC-P, ICC/IF |
| Species reactivity | Reacts with: Human Predicted to work with: Mouse, Rat  |
| Immunogen | Recombinant fragment corresponding to Human PIKE aa 700-850. Database link: Q99490  Run BLAST with  Run BLAST with |
| Positive control | IHC-P: Human cerebellum tissue. ICC/IF: U-251 MG cells. |
| 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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| Storage buffer | pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), PBS |
| Purity | Immunogen affinity purified |
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

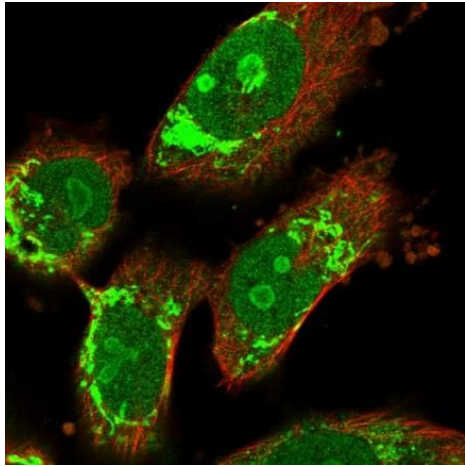
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab224118 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| IHC-P | | 1/50 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| ICC/IF | | Use a concentration of 0.25 - 2 µg/ml. Fixation/Permeabilization: PFA/Triton X-100. |

Target

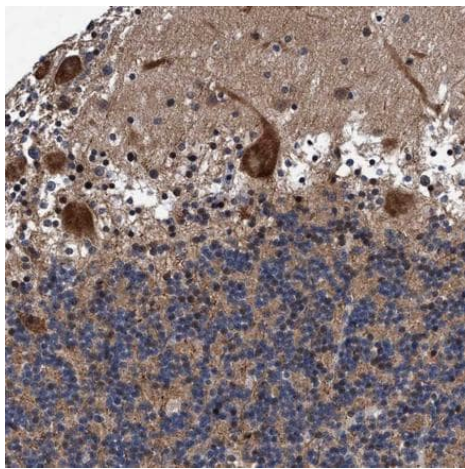
| | |
|---|---|
| Function | GTPase-activating protein (GAP) for ARF1 and ARF5, which also shows strong GTPase activity. Isoform 1 participates in the prevention of neuronal apoptosis by enhancing PI3 kinase activity. It aids the coupling of metabotropic glutamate receptor 1 (GRM1) to cytoplasmic PI3 kinase by interacting with Homer scaffolding proteins, and also seems to mediate anti-apoptotic effects of NGF by activating nuclear PI3 kinase. Isoform 2 does not stimulate PI3 kinase but may protect cells from apoptosis by stimulating Akt. It also regulates the adapter protein 1 (AP-1)-dependent trafficking of proteins in the endosomal system. It seems to be oncogenic. It is overexpressed in cancer cells, prevents apoptosis and promotes cancer cell invasion. |
| Tissue specificity | Isoform 1 is brain-specific. Isoform 2 is ubiquitously expressed, with highest levels in brain and heart. |
| Sequence similarities | Belongs to the centaurin gamma-like family. Contains 2 ANK repeats. Contains 1 Arf-GAP domain. Contains 1 PH domain. |
| Domain | G domain binds GTP and has GTPase activity. Arf-GAP domain interacts with G domain and may regulate its GTPase activity. Although both PH domains of isoforms 1 and 2 bind phospholipids, they differently regulate subcellular location. PH domain of isoform 1 directs the protein to the nucleus, but PH domain of isoform 2 directs it to the cytosol. PH domain of isoform 2 is required for binding to AP-1. |
| Post-translational modifications | Isoform PIKE-A is phosphorylated at Tyr-682 and Tyr-774 by FYN, preventing its apoptotic cleavage. |
| Cellular localization | Cytoplasm and Cytoplasm. Nucleus. |

Images



PFA-fixed, Triton X-100 permeabilized U-251 MG (human brain glioma cell line) cells stained for PIKE (green) using ab224118 (4 $\mu\text{g/ml}$) in ICC/IF.

Immunocytochemistry/ Immunofluorescence - Anti-PIKE antibody (ab224118)



Paraffin-embedded human cerebellum tissue stained for PIKE with ab224118 (1/50) in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIKE antibody (ab224118)

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