

PAFAH1B1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP20863a

Product Information

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|--------------------------|------------------------|
| Application | WB, IHC-P, E |
| Primary Accession | P43034 |
| Reactivity | Human, Rat, Mouse |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Clone Names | RB50845 |
| Calculated MW | 46638 |

Additional Information

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|---------------------------|---|
| Gene ID | 5048 |
| Other Names | Platelet-activating factor acetylhydrolase IB subunit alpha {ECO:0000255 HAMAP-Rule:MF_03141}, Lissencephaly-1 protein {ECO:0000255 HAMAP-Rule:MF_03141}, LIS-1 {ECO:0000255 HAMAP-Rule:MF_03141}, PAF acetylhydrolase 45 kDa subunit {ECO:0000255 HAMAP-Rule:MF_03141}, PAF-AH 45 kDa subunit {ECO:0000255 HAMAP-Rule:MF_03141}, PAF-AH alpha {ECO:0000255 HAMAP-Rule:MF_03141}, PAFAH alpha {ECO:0000255 HAMAP-Rule:MF_03141}, PAFAH1B1 {ECO:0000255 HAMAP-Rule:MF_03141} |
| Target/Specificity | This PAFAH1B1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 76-110 amino acids from the N-terminal region of human PAFAH1B1. |
| Dilution | WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration. |
| Format | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| Storage | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| Precautions | PAFAH1B1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

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| Name | LIS1 |
| Function | Regulatory subunit (beta subunit) of the cytosolic type I platelet-activating factor (PAF) acetylhydrolase (PAF-AH (I)), an enzyme that catalyzes the hydrolyze of the acetyl group at the sn-2 position of PAF and its analogs and participates in PAF inactivation. Regulates the PAF-AH (I) activity in a catalytic dimer composition- dependent manner (By similarity). Required for proper activation of Rho GTPases and actin polymerization at the leading edge of locomoting cerebellar neurons and postmigratory hippocampal neurons in response to calcium influx triggered via NMDA receptors (By similarity). Positively regulates the activity of the minus-end directed microtubule motor protein dynein. May enhance dynein-mediated microtubule sliding by targeting dynein to the microtubule plus end. Required for several dynein- and microtubule-dependent processes such as the maintenance of Golgi integrity, the peripheral transport of microtubule fragments and the coupling of the nucleus and centrosome. Required during brain development for the proliferation of neuronal precursors and the migration of newly formed neurons from the ventricular/subventricular zone toward the cortical plate. Neuronal migration involves a process called nucleokinesis, whereby migrating cells extend an anterior process into which the nucleus subsequently translocates. During nucleokinesis dynein at the nuclear surface may translocate the nucleus towards the centrosome by exerting force on centrosomal microtubules. May also play a role in other forms of cell locomotion including the migration of fibroblasts during wound healing. Required for dynein recruitment to microtubule plus ends and BICD2-bound cargos (PubMed: 22956769). May modulate the Reelin pathway through interaction of the PAF-AH (I) catalytic dimer with VLDLR (By similarity). |
| Cellular Location | Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle {ECO:0000255 HAMAP-Rule:MF_03141}. Nucleus membrane {ECO:0000255 HAMAP- Rule:MF_03141}. Note=Redistributes to axons during neuronal development. Also localizes to the microtubules of the manchette in elongating spermatids and to the meiotic spindle in spermatocytes (By similarity). Localizes to the plus end of microtubules and to the centrosome. May localize to the nuclear membrane. |
| Tissue Location | Fairly ubiquitous expression in both the frontal and occipital areas of the brain |

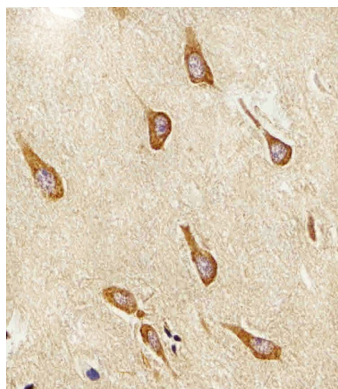
Background

Required for proper activation of Rho GTPases and actin polymerization at the leading edge of locomoting cerebellar neurons and postmigratory hippocampal neurons in response to calcium influx triggered via NMDA receptors. Non-catalytic subunit of an acetylhydrolase complex which inactivates platelet- activating factor (PAF) by removing the acetyl group at the SN-2 position (By similarity). Positively regulates the activity of the minus-end directed microtubule motor protein dynein. May enhance dynein-mediated microtubule sliding by targeting dynein to the microtubule plus end. Required for several dynein- and microtubule-dependent processes such as the maintenance of Golgi integrity, the peripheral transport of microtubule fragments and the coupling of the nucleus and centrosome. Required during brain development for the proliferation of neuronal precursors and the migration of newly formed neurons from the ventricular/subventricular zone toward the cortical plate. Neuronal migration involves a process called nucleokinesis, whereby migrating cells extend an anterior process into which the nucleus subsequently translocates. During nucleokinesis dynein at the nuclear surface may translocate the nucleus towards the centrosome by exerting force on centrosomal microtubules. May also play a role in other forms of cell locomotion including the migration of fibroblasts during wound healing.

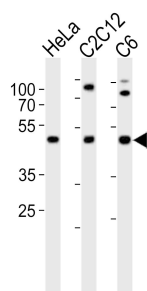
References

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Lo Nigro C.,et al.Hum. Mol. Genet. 6:157-164(1997).
Zhao M.J.,et al.Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Feng Z.,et al.Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Immunohistochemical analysis of paraffin-embedded H. brain section using PAFAH1B1 Antibody (N-term)(Cat#AP20863a). AP20863a was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Western blot analysis of lysates from HeLa, mouse C2C12, rat C6 cell line (from left to right), using PAFAH1B1 Antibody (N-term)(Cat. #AP20863a). AP20863a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.