

PAFAH1B3 (37-K): sc-81950

BACKGROUND

The platelet activating factor (PAF) acetylhydrolases catalyze hydrolysis of the sn-2 ester bond of PAF and related proinflammatory phospholipids and thus attenuate their bioactivity. The family of PAF acetylhydrolases includes one secreted plasma isozyme and two intracellular isozymes. The intracellular isozymes are distinguished by differences in their primary sequence, tissue localization, subunit composition and substrate preferences. The most thoroughly characterized intracellular isoform, PAFAH1B, is a heterotrimeric protein expressed in brain tissue and plays an important role in brain development and function. PAFAH1B is comprised of a regulatory subunit (LIS1) and two homologous (63% identity) catalytic subunits (PAFAH1B2 and PAFAH1B3), which harbor all the activity of the enzyme. The PAFAH1B2 and PAFAH1B3 subunits readily associate with very high affinity to form heterodimers, and this dimerization is essential for both stability and catalytic activity. PAFAH1B3 is also commonly known as PAFAH1B subunit, PAFAH1B subunit γ or PAFAH1B subunit $\alpha 1$.

REFERENCES

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- Sweeney, K.J., et al. 2000. Lissencephaly associated mutations suggest a requirement for the PAFAH1B heterotrimeric complex in brain development. *Mech. Dev.* 92: 263-271.
- Nothwang, H.G., et al. 2001. Functional hemizygoty of PAFAH1B3 due to a PAFAH1B3-CLK2 fusion gene in a female with mental retardation, ataxia and atrophy of the brain. *Hum. Mol. Genet.* 10: 797-806.
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CHROMOSOMAL LOCATION

Genetic locus: PAFAH1B3 (human) mapping to 19q13.2; Pafah1b3 (mouse) mapping to 7 A3.

SOURCE

PAFAH1B3 (37-K) is a mouse monoclonal antibody raised against recombinant PAFAH1B3 of human origin.

PRODUCT

Each vial contains 100 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PAFAH1B3 (37-K) is recommended for detection of PAFAH1B3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PAFAH1B3 siRNA (h): sc-97212, PAFAH1B3 siRNA (m): sc-151993, PAFAH1B3 shRNA Plasmid (h): sc-97212-SH, PAFAH1B3 shRNA Plasmid (m): sc-151993-SH, PAFAH1B3 shRNA (h) Lentiviral Particles: sc-97212-V and PAFAH1B3 shRNA (m) Lentiviral Particles: sc-151993-V.

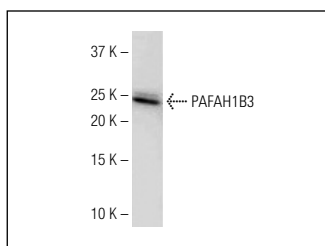
Molecular Weight of PAFAH1B3: 29 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or HeLa whole cell lysate: sc-2200.

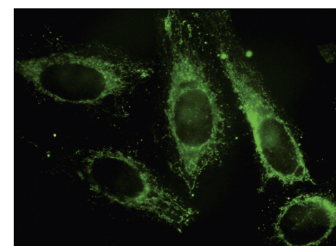
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PAFAH1B3 (37-K): sc-81950. Western blot analysis of PAFAH1B3 expression in IMR-32 whole cell lysate.



PAFAH1B3 (37-K): sc-81950. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.