

PAF acetylhydrolase 2 siRNA (m): sc-151991

BACKGROUND

PAF acetylhydrolase 2 (platelet-activating factor acetylhydrolase 2), also known as PAFH2, is a 392 amino acid cytoplasmic protein that belongs to the serine esterase family. PAF acetylhydrolase 2 exists as a monomer that has a marked selectivity for phospholipids with short acyl chains at the sn-2 position. While broadly expressed in many different tissues, PAF acetylhydrolase 2 expression is highest in B- and T-lymphocytes. In brain, PAF acetylhydrolase 2 expression is restricted to amygdala and frontal cortex. The gene that encodes PAF acetylhydrolase 2 consists of approximately 38,391 bases and maps to human chromosome 1p36.11. Comprising nearly 8% of the human genome, chromosome 1 spans 260 million base pairs, contains over 3,000 genes and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

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- Yatebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
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CHROMOSOMAL LOCATION

Genetic locus: Pafah2 (mouse) mapping to 4 D3.

PRODUCT

PAF acetylhydrolase 2 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PAF acetylhydrolase 2 shRNA Plasmid (m): sc-151991-SH and PAF acetylhydrolase 2 shRNA (m) Lentiviral Particles: sc-151991-V as alternate gene silencing products.

For independent verification of PAF acetylhydrolase 2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-151991A, sc-151991B and sc-151991C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PAF acetylhydrolase 2 siRNA (m) is recommended for the inhibition of PAF acetylhydrolase 2 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

PAF acetylhydrolase 2 (B-6): sc-390508 is recommended as a control antibody for monitoring of PAF acetylhydrolase 2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PAF acetylhydrolase 2 gene expression knockdown using RT-PCR Primer: PAF acetylhydrolase 2 (m)-PR: sc-151991-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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