SANTA CRUZ BIOTECHNOLOGY, INC.

FLAP (M-17): sc-18187

BACKGROUND

Arachidonate 5-lipoxygenase-activating protein (FLAP) is an arachidonic acid binding protein that is critical in the biosynthesis of leukotrienes. FLAP is an integral membrane protein that catalyzes the transformation of arachidonic acid to leukotriene A4. Leukotrienes are the biologically active metabolites of arachidonic acid that are involved in host defense pathways and play an important role in inflammatory diseases like asthma, inflammatory bowel disease, psoriasis and arthritis. Inhibitors of FLAP function prevent translocation of 5-lipoxygenase from the cytosol to the membrane and inhibit 5-lipoxygenase activation. The human FLAP gene, which maps to chromosome 13q12.3, encodes a 161 amino acid protein. In alveolar macrophages treated with LPS, FLAP activity is suppressed by the inhibition by nitric oxide synthase, although there is no observable decrease in FLAP expression by this pathway.

REFERENCES

1. Dixon, R.A., et al. 1990. Requirement of a 5-lipoxygenase-activating protein for leukotriene synthesis. Nature. 343: 282-284.
2. Steinhilber, D. 1994. 5-Lipoxygenase: enzyme expression and regulation of activity. Pharm. Acta. Helv. 69: 3-14.
3. Lammers, C.H., et al. 1996. Arachidonate 5-lipoxygenase and its activating protein: prominent hippocampal expression and role in somatostatin signaling. J. Neurochem. 66: 147-152.
4. Yandava, C.N., et al. 1999. Cytogenetic and radiation hybrid mapping of human arachidonate 5-lipoxygenase-activating protein (ALOX5AP) to chromosome 13q12. Genomics 56: 131-133.
5. Coffey, M.J., et al. 2000. Prolonged exposure to lipopolysaccharide inhibits macrophage 5-lipoxygenase metabolism via induction of nitric oxide synthesis. J. Immunol. 165: 3592-3598.
6. LocusLink Report (LocusID: 241). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: ALOX5AP (human) mapping to 13q12.3; Alox5ap (mouse) mapping to 5 G3.

SOURCE

FLAP (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FLAP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18187 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FLAP (M-17) is recommended for detection of FLAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FLAP (M-17) is also recommended for detection of FLAP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FLAP siRNA (h): sc-41394, FLAP siRNA (m): sc-41395, FLAP shRNA Plasmid (h): sc-41394-SH, FLAP shRNA Plasmid (m): sc-41395-SH, FLAP shRNA (h) Lentiviral Particles: sc-41394-V and FLAP shRNA (m) Lentiviral Particles: sc-41395-V.

Molecular Weight of FLAP: 18 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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