SANTA CRUZ BIOTECHNOLOGY, INC.

PLAA (E-13): sc-163234

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. PLAA, also known as PLAP (Phospholipase A-2-activating protein) or DOA1, is a 795 amino acid protein that contains one PFU domain, one PUL domain and seven WD repeats. Via its regulatory domains, PLAA interacts with and activates phospholipase A2 (PLA2), thereby playing an important role in the regulation of inflammatory disease processes.

REFERENCES

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2. Chopra, A.K., et al. 1999. Molecular characterization of cDNA for phospholipase A2-activating protein. Biochim. Biophys. Acta 1444: 125-130.
3. Ruiz, A., et al. 1999. Cloning of the human phospholipase A2 activating protein (hPLAP) gene on the chromosome 9p21 melanoma deleted region. Gene 239: 155-161.
4. Beatty, B.G., et al. 1999. Chromosomal localization of phospholipase A2 activating protein, an Ets2 target gene, to 9p21. Genomics 62: 529-532.
5. Kozlenkov, A., et al. 2002. Function assignment to conserved residues in mammalian alkaline phosphatases. J. Biol. Chem. 277: 22992-22999.
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8. Schwartz, Z., et al. 2005. Phospholipase A2 activating protein (PLAA) is required for 1α,25(OH)2D3 signaling in growth plate chondrocytes. J. Cell. Physiol. 203: 54-70.
9. Zhang, F., et al. 2008. Alteration in the activation state of new inflammation-associated targets by phospholipase A2-activating protein (PLAA). Cell. Signal. 20: 844-861.

CHROMOSOMAL LOCATION

Genetic locus: PLAA (human) mapping to 9p21.2; Plaa (mouse) mapping to 4 C5.

SOURCE

PLAA (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PLAA of human origin.

RESEARCH USE

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

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-163234 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLAA (E-13) is recommended for detection of PLAA 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).

PLAA (E-13) is also recommended for detection of PLAA in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PLAA siRNA (h): sc-92631, PLAA siRNA (m): sc-152288, PLAA shRNA Plasmid (h): sc-92631-SH, PLAA shRNA Plasmid (m): sc-152288-SH, PLAA shRNA (h) Lentiviral Particles: sc-92631-V and PLAA shRNA (m) Lentiviral Particles: sc-152288-V.

Molecular Weight of PLAA: 73 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.

STORAGE

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

PROTOCOLS

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