SANTA CRUZ BIOTECHNOLOGY, INC.

FAM13A (N-17): sc-242692

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. FAM13A (family with sequence similarity 13, member A), also known as FAM13A1, KIAA0914 or ARHGAP48 (rho GTPase activating protein 48), is a 1,023 amino acid protein that consists of one Rho-GAP domain and may function as a GTPase activator. FAM13A exists as five alternatively isoforms where isoform 1 is widely expressed, with highest expression in skeletal muscle, thymus, brain and lung while isoform 3 is predominantly expressed in kidney, pancreas, liver, lung and thymus. Mutations in the gene encoding FAM13A is associated with several common chronic lung diseases (CLD) such as chronic obstructive pulmonary disease (COPD), asthma, as well as in idiopathic interstitial pneumonias (IIP). The gene encoding FAM13A is located on human chromosome 4q22.1.

REFERENCES

1. Cohen, M., et al. 2004. Cloning and characterization of FAM13A1—a gene near a milk protein QTL on BTA6: evidence for population-wide linkage disequilibrium in Israeli Holsteins. Genomics 84: 374-383.
2. Pillai, S.G., et al. 2010. Loci identified by genome-wide association studies influence different disease-related phenotypes in chronic obstructive pulmonary disease. Am. J. Respir. Crit. Care Med. 182: 1498-1505.
3. Cho, M.H., et al. 2010. Variants in FAM13A are associated with chronic obstructive pulmonary disease. Nat. Genet. 42: 200-202.
4. Guo, Y., et al. 2011. Genetic analysis of IREB2, FAM13A and XRCC5 variants in Chinese Han patients with chronic obstructive pulmonary disease. Biochem. Biophys. Res. Commun. 415: 284-287.
5. Cho, M.H., et al. 2012. A genome-wide association study of COPD identifies a susceptibility locus on chromosome 19q13. Hum. Mol. Genet. 21: 947-957.
6. Wang, B., et al. 2013. Association of FAM13A polymorphisms with COPD and COPD-related phenotypes in Han Chinese. Clin. Biochem. 46: 1683-1688.

CHROMOSOMAL LOCATION

Genetic locus: FAM13A (human) mapping to 4q22.1; Fam13a (mouse) mapping to 6 B3.

SOURCE

FAM13A (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of FAM13A 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-242692 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAM13A (N-17) is recommended for detection of FAM13A 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).

FAM13A (N-17) is also recommended for detection of FAM13A in additional species, including equine and canine.

Suitable for use as control antibody for FAM13A siRNA (h): sc-89263, Fam13a siRNA (m): sc-142820, FAM13A shRNA Plasmid (h): sc-89263-SH, Fam13a shRNA Plasmid (m): sc-142820-SH, FAM13A shRNA (h) Lentiviral Particles: sc-89263-V and Fam13a shRNA (m) Lentiviral Particles: sc-142820-V.

Molecular Weight of FAM13A human isoforms 1-5: 77/78/80/117 kDa.

Molecular Weight of FAM13A mouse isoform: 79 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.

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.