SANTA CRUZ BIOTECHNOLOGY, INC.

Raftlin (N-14): sc-103139

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The Power to Question

BACKGROUND

Membrane microdomains known as lipid rafts are implicated in B cell activation during B cell receptor (BCR) signal initiation. Raftlin, also known as RFTN1 (Raftlin, lipid raft linker 1), cell migration-inducing gene 2 protein, PIB10, PIG9 or MIG2, is a 578 amino acid cell membrane protein and lipid anchor that is essential for raft cell assembly and maintenance. A member of the Raftlin family, Raftlin modulates B cell antigen receptor-mediated signaling, TCR signals, and is involved in T cell-mediated immune responses. The gene encoding Raftlin maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan Syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

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2. Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. Cytogenet. Cell Genet. 87: 265-268.
3. Saeki, K., et al. 2003. The B cell-specific major raft protein, Raftlin, is necessary for the integrity of lipid raft and BCR signal transduction. EMBO J. 22: 3015-3026.
4. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
5. Pfeifer, G.P. and Dammann, R. 2005. Methylation of the tumor suppressor gene RASSF1A in human tumors. Biochemistry Mosc. 70: 576-583.
6. Saeki, K., et al. 2009. A major lipid raft protein Raftlin modulates T cell receptor signaling and enhances th17-mediated autoimmune responses. J. Immunol. 182: 5929-5937.
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CHROMOSOMAL LOCATION

Genetic locus: RFTN1 (human) mapping to 3p25.1; Rftn1 (mouse) mapping to 17 C.

SOURCE

Raftlin (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Raftlin of human origin.

STORAGE

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

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-103139 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Raftlin (N-14) is recommended for detection of Raftlin of mouse 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).

Raftlin (N-14) is also recommended for detection of Raftlin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Raftlin siRNA (h): sc-78194, Raftlin siRNA (m): sc-152681, Raftlin shRNA Plasmid (h): sc-78194-SH, Raftlin shRNA Plasmid (m): sc-152681-SH, Raftlin shRNA (h) Lentiviral Particles: sc-78194-V and Raftlin shRNA (m) Lentiviral Particles: sc-152681-V.

Molecular Weight of Raftlin: 63 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.