

Raftlin-2 (E-13): sc-137705

BACKGROUND

Membrane microdomains known as lipid rafts are implicated in B cell activation during B cell receptor (BCR) signal initiation. Raftlin-2, also designated RFTN2 (Raftlin family member 2) or raft-linking protein 2, is a 501 amino acid cell membrane protein that is essential for raft cell assembly and maintenance. A lipid anchor protein, Raftlin-2 belongs to the Raftlin family and is encoded by a gene that maps to human chromosome 2q33.1 and mouse chromosome 1 C1.2. Human chromosome 2 is the second largest human chromosome, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome is due to mutations in the ALMS1 gene.

REFERENCES

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- Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. *Cytogenet. Cell Genet.* 92: 204-208.
- Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. *Nat. Genet.* 31: 79-83.
- 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.
- Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. *Am. J. Hum. Genet.* 76: 794-803.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: RFTN2 (human) mapping to 2q33.1; Rftn2 (mouse) mapping to 1 C1.2.

SOURCE

Raftlin-2 (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Raftlin-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137705 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Raftlin-2 (E-13) is recommended for detection of Raftlin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Raftlin.

Raftlin-2 (E-13) is also recommended for detection of Raftlin-2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Raftlin-2 siRNA (h): sc-94749, Raftlin-2 siRNA (m): sc-152682, Raftlin-2 shRNA Plasmid (h): sc-94749-SH, Raftlin-2 shRNA Plasmid (m): sc-152682-SH, Raftlin-2 shRNA (h) Lentiviral Particles: sc-94749-V and Raftlin-2 shRNA (m) Lentiviral Particles: sc-152682-V.

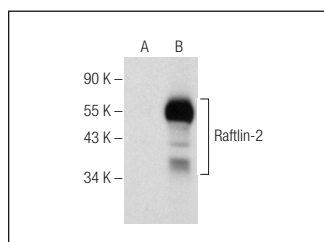
Molecular Weight of Raftlin-2: 56 kDa.

Positive Controls: Raftlin-2 (m): 293T Lysate: sc-122944.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Raftlin-2 (E-13): sc-137705. Western blot analysis of Raftlin-2 expression in non-transfected: sc-117752 (A) and mouse Raftlin-2 transfected: sc-122944 (B) 293T whole cell lysates.

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.