

Raftlin-2 (F-7): sc-514540

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

1. Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
2. 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.
3. 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.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Raftlin-2 (F-7) is a mouse monoclonal antibody raised against amino acids 32-211 mapping near the N-terminus of Raftlin-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Raftlin-2 (F-7) is available conjugated to agarose (sc-514540 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514540 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514540 PE), fluorescein (sc-514540 FITC), Alexa Fluor® 488 (sc-514540 AF488), Alexa Fluor® 546 (sc-514540 AF546), Alexa Fluor® 594 (sc-514540 AF594) or Alexa Fluor® 647 (sc-514540 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514540 AF680) or Alexa Fluor® 790 (sc-514540 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Raftlin-2 (F-7) is recommended for detection of Raftlin-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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.

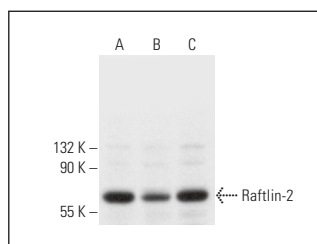
Molecular Weight of Raftlin-2: 56 kDa.

Positive Controls: T98G cell lysate: sc-2294, HT-1080 whole cell lysate: sc-364183 or HeLa whole cell lysate: sc-2200.

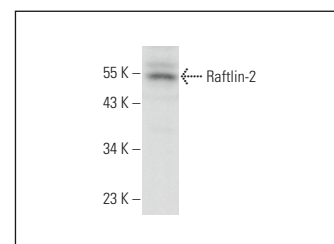
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Raftlin-2 (F-7): sc-514540. Western blot analysis of Raftlin-2 expression in T98G (A), HT-1080 (B) and HeLa (C) whole cell lysates.



Raftlin-2 (F-7): sc-514540. Western blot analysis of Raftlin-2 expression in F9 whole cell lysate.

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 for detailed protocols and support products.