

# SPFH2 (C-15): sc-82035

## BACKGROUND

SPFH2 (Stomatin-Prohibitin-flotillin-HflC/K domain-containing protein 2), also known as ERLIN2 (Endoplasmic reticulum lipid raft-associated protein 2), C8orf2 or erlin-2, is a ubiquitously expressed 339 amino acid protein that belongs to the band 7/mec-2 family. Localized to lipid raft-like domains in the membrane of the endoplasmic reticulum (ER), SPFH2 plays a crucial role in the ER-associated degradation (ERAD) pathway that removes metabolically regulated and aberrant proteins from the ER. Specifically, SPFH2 associates with IP3R-1 (Inositol 1,4,5-triphosphate receptor 1), a substrate of the ERAD pathway, and facilitates its polyubiquitination and subsequent degradation. Three isoforms of SPFH2 are expressed due to alternative splicing events.

## REFERENCES

1. Ikegawa, S., Isomura, M., Koshizuka, Y. and Nakamura, Y. 1999. Cloning and characterization of a novel gene (C8orf2), a human representative of a novel gene family with homology to *C. elegans* C42.C1.9. *Cytogenet. Cell Genet.* 85: 227-231.
2. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611605. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Sprenger, R.R., Speijer, D., Back, J.W., De Koster, C.G., Pannekoek, H. and Horrevoets, A.J. 2004. Comparative proteomics of human endothelial cell caveolae and rafts using two-dimensional gel electrophoresis and mass spectrometry. *Electrophoresis* 25: 156-172.
4. Sprenger, R.R., Fontijn, R.D., van Marle, J., Pannekoek, H. and Horrevoets, A.J. 2006. Spatial segregation of transport and signalling functions between human endothelial caveolae and lipid raft proteomes. *Biochem. J.* 400: 401-410.
5. Browman, D.T., Resek, M.E., Zajchowski, L.D. and Robbins, S.M. 2006. Erlin-1 and Erlin-2 are novel members of the prohibitin family of proteins that define lipid-raft-like domains of the ER. *J. Cell. Sci.* 119: 3149-3160.

## CHROMOSOMAL LOCATION

Genetic locus: ERLIN2 (human) mapping to 8p12; Erlin2 (mouse) mapping to 8 A2.

## SOURCE

SPFH2 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SPFH2 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## 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-82035 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SPFH2 (C-15) is recommended for detection of SPFH2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 SPFH2 siRNA (h): sc-76559, SPFH2 siRNA (m): sc-76560, SPFH2 shRNA Plasmid (h): sc-76559-SH, SPFH2 shRNA Plasmid (m): sc-76560-SH, SPFH2 shRNA (h) Lentiviral Particles: sc-76559-V and SPFH2 shRNA (m) Lentiviral Particles: sc-76560-V.

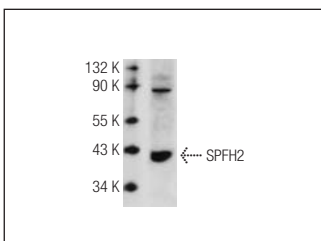
Molecular Weight of SPFH2: 43 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



SPFH2 (C-15): sc-82035. Western blot analysis of SPFH2 expression in Ramos whole cell lysate.

## RESEARCH USE

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