

RHBDL2 (U-24): sc-133959

BACKGROUND

Members of the rhomboid family of integral membrane proteins are related to *Drosophila* Rhomboid-1, a serine protease that cleaves the membrane domain of the *Drosophila* EGF-family protein, Spitz, to release a soluble growth factor. RHBDL2 (rhomboid, veinlet-like 2), also known as rhomboid-related protein 2 or RRP2, is a 303 amino acid multi-pass membrane protein belonging to the rhomboid family. As an intramembrane serine protease, RHBDL2 cleaves type-1 transmembrane domains and releases soluble growth factors by cleaving membrane-bound substrates, specifically ephrin-B2 and ephrin-B3. Two isoforms of RHBDL2 exist as a result of alternative splicing events, and RHBDL2 is encoded by a gene mapping to human chromosome 1p34.3. Chromosome 1 spans about 260 million base pairs, makes up 8% of the human genome and contains approximately 3,000 genes.

REFERENCES

- Urban, S., Lee, J.R. and Freeman, M. 2001. *Drosophila* Rhomboid-1 defines a family of putative intramembrane serine proteases. *Cell* 107: 173-182.
- Urban, S., Lee, J.R. and Freeman, M. 2002. A family of rhomboid intramembrane proteases activates all *Drosophila* membrane-tethered EGF ligands. *EMBO J.* 21: 4277-4286.
- Urban, S. and Freeman, M. 2003. Substrate specificity of rhomboid intramembrane proteases is governed by helix-breaking residues in the substrate transmembrane domain. *Mol. Cell* 11: 1425-1434.
- Pascall, J.C. and Brown, K.D. 2004. Intramembrane cleavage of ephrin-B3 by the human rhomboid family protease, RHBDL2. *Biochem. Biophys. Res. Commun.* 317: 244-252.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608962. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: RHBDL2 (human) mapping to 1p34.3.

SOURCE

RHBDL2 (U-24) is an affinity purified rabbit polyclonal antibody raised against synthetic RHBDL2 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

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.

APPLICATIONS

RHBDL2 (U-24) is recommended for detection of RHBDL2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RHBDL2 siRNA (h): sc-78855, RHBDL2 shRNA Plasmid (h): sc-78855-SH and RHBDL2 shRNA (h) Lentiviral Particles: sc-78855-V.

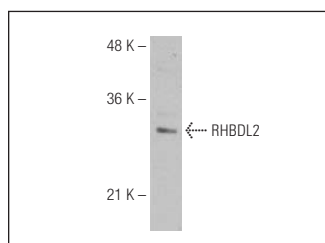
Molecular Weight of RHBDL2: 34 kDa.

Positive Controls: PANC1 whole cell lysate.

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).

DATA



RHBDL2 (U-24): sc-133959. Western blot analysis of RHBDL2 expression in PANC1 whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.