

ROM1 (E-15)-R: sc-162119-R

BACKGROUND

ROM1 (retinal outer segment membrane protein 1), also known as ROM, RP7, ROSP1 or TSPAN23, is a 351 amino acid integral membrane protein found in the photoreceptor disk rim of the eye. Belonging to the PRPH2/ROM1 family, ROM1 exists as a homodimer but can also form heterodimers with retinal degeneration slow (RDS). ROM1 is essential for disk morphogenesis and may also function as an adhesion molecule involved in the stabilization and compaction of outer segment disks or in the maintenance of the curvature of the rim. Certain defects in the gene encoding ROM1 have been associated with retinitis pigmentosa, a group of genetic eye conditions characterized by the progressive loss of photoreceptor cells that may potentially lead to blindness.

REFERENCES

1. Bascom, R.A., et al. 1993. Polymorphisms and rare sequence variants at the ROM1 locus. *Hum. Mol. Genet.* 2: 1975-1977.
2. Taylor, B.A., et al. 1994. The retinal outer segment membrane protein-1 gene (Rom1) maps to the proximal end of mouse chromosome 19. *Genomics* 23: 510-511.
3. Bascom, R.A., et al. 1995. Mutation analysis of the ROM1 gene in retinitis pigmentosa. *Hum. Mol. Genet.* 4: 1895-1902.
4. Gould, D.J., et al. 1997. Cloning of canine Rom-1 and its investigation as a candidate gene for generalized progressive retinal atrophies in dogs. *Anim. Genet.* 28: 391-396.
5. Dryja, T.P., et al. 1997. Dominant and digenic mutations in the peripherin/RDS and ROM1 genes in retinitis pigmentosa. *Invest. Ophthalmol. Vis. Sci.* 38: 1972-1982.
6. Runte, M., et al. 2000. Evaluation of RDS/Peripherin and ROM1 as candidate genes in generalised progressive retinal atrophy and exclusion of digenic inheritance. *Anim. Genet.* 31: 223-227.

CHROMOSOMAL LOCATION

Genetic locus: ROM1 (human) mapping to 11q12.3; Rom1 (mouse) mapping to 19 A.

SOURCE

ROM1 (E-15)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of ROM1 of mouse origin.

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-162119 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ROM1 (E-15)-R is recommended for detection of ROM1 of mouse, rat and, to a lesser extent, 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).

ROM1 (E-15)-R is also recommended for detection of ROM1 in additional species, including equine, canine, bovine and porcine.

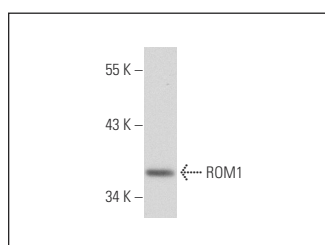
Suitable for use as control antibody for ROM1 siRNA (h): sc-96624, ROM1 siRNA (m): sc-153060, ROM1 shRNA Plasmid (h): sc-96624-SH, ROM1 shRNA Plasmid (m): sc-153060-SH, ROM1 shRNA (h) Lentiviral Particles: sc-96624-V and ROM1 shRNA (m) Lentiviral Particles: sc-153060-V.

Molecular Weight of ROM1: 37 kDa.

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



ROM1 (E-15): sc-162119. Western blot analysis of ROM1 expression in ARPE-19 whole cell lysate.

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.