

RDS (m2): 293T Lysate: sc-123051

BACKGROUND

Retinal degeneration slow (RDS) is a mouse neurological mutation that is characterized phenotypically by abnormal development of rod and cone photoreceptors followed by their slow degeneration. This phenotype resembles the pathologic abnormalities seen in retinitis pigmentosa. Mouse RDS is due to a defect in a specific retinal protein which is photoreceptor-specific and is homologous in several respects to the rod outer segment protein-1. The human RDS protein is 92% homologous to its murine analog. The RDS protein is a membrane-associated glycoprotein restricted to photoreceptor outer segment discs and may function as an adhesion molecule involved in stabilization and compaction of outer segment discs. The association of the RDS gene with a degenerative retinopathy in mice makes it an important candidate gene for human retinopathies. The gene which encodes RDS maps to human chromosome 6p21.1.

REFERENCES

1. Travis, G.H., et al. 1989. Identification of a photoreceptor-specific mRNA encoded by the gene responsible for retinal degeneration slow (RDS). *Nature* 338: 70-73.
2. Dryja, T.P., et al. 1989. Isolation of human retinal cDNA fragments homologous to the murine RDS gene transcript. *Invest. Ophthalmol. Vis. Sci.* 30: 43.
3. Travis, G.H., et al. 1991. The human retinal degeneration slow (RDS) gene: chromosome assignment and structure of the mRNA. *Genomics* 10: 733-739.
4. Felbor, U., et al. 1997. Adult vitelliform macular dystrophy is frequently associated with mutations in the peripherin/RDS gene. *Hum. Mutat.* 10: 301-309.
5. Ali, R.R., et al. 2000. Restoration of photoreceptor ultrastructure and function in retinal degeneration slow mice by gene therapy. *Nat. Genet.* 25: 306-310.

CHROMOSOMAL LOCATION

Genetic locus: Prph2 (mouse) mapping to 17 C.

PRODUCT

RDS (m2): 293T Lysate represents a lysate of mouse RDS transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

RDS (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RDS antibodies. Recommended use: 10-20 µl per lane.

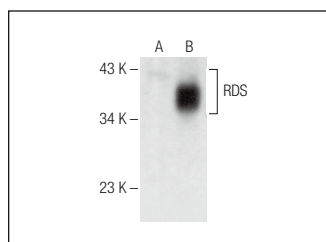
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RDS (E-5): sc-390278 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse RDS expression in RDS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



RDS (E-5): sc-390278. Western blot analysis of RDS expression in non-transfected: sc-117752 (A) and mouse RDS transfected: sc-123051 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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