

# Hrs (m): 293T Lysate: sc-125474

## BACKGROUND

The hepatocyte growth factor-regulated tyrosine kinase substrate (Hrs) is a zinc-finger protein that interacts with STAM and undergoes tyrosine phosphorylation in response to IL2, CSF2 or HGF. Hrs is involved in intracellular trafficking and signal transduction and is associated with early endosomes. Hrs contains a phosphatidylinositol 3-phosphate-binding domain that contributes to its endosomal targeting, where Hrs co-localizes with Clathrin via a Clathrin box motif at the carboxy-terminus of Hrs. Hrs is essential for ventral folding morphogenesis and shares structural similarity to the yeast protein Vps27p, which is involved in vacuolar protein sorting. The human Hrs gene, which maps to chromosome 17q25, encodes a 777 amino acid protein. In Schwann cells, Hrs co-localizes at endosomes with the tumor suppressor protein schwannomin, suggesting a role for schwannomin in Hrs-mediated cell signaling.

## REFERENCES

1. Asao, H., Sasaki, Y., Arita, T., Tanaka, N., Endo, K., Kasai, H., Takeshita, T., Endo, Y., Fujita, T. and Sugamura, K. 1997. Hrs is associated with STAM, a signal-transducing adaptor molecule. Its suppressive effect on cytokine-induced cell growth. *J. Biol. Chem.* 272: 32785-32791.
2. Lu, L., Komada, M. and Kitamura, N. 1998. Human Hrs, a tyrosine kinase substrate in growth factor-stimulated cells: cDNA cloning and mapping of the gene to chromosome 17. *Gene* 213: 125-132.
3. Scoles, D.R., Huynh, D.P., Chen, M.S., Burke, S.P., Gutmann, D.H. and Pulst, S.M. 2000. The neurofibromatosis 2 tumor suppressor protein interacts with hepatocyte growth factor-regulated tyrosine kinase substrate. *Hum. Mol. Genet.* 9: 1567-1574.
4. Raiborg, C., Gronvold Bache, K., Mehlum, A., Stang, E. and Stenmark, H. 2001. Hrs recruits clathrin to early endosomes. *EMBO J.* 20: 5008-5021.
5. Raiborg, C., Bache, K.G., Mehlum, A. and Stenmark, H. 2001. Function of Hrs in endocytic trafficking and signalling. *Biochem. Soc. Trans.* 29: 472-475.
6. LocusLink Report (Locus ID: 9146) <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: Hgs (mouse) mapping to 11 E2.

## PRODUCT

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

## APPLICATIONS

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

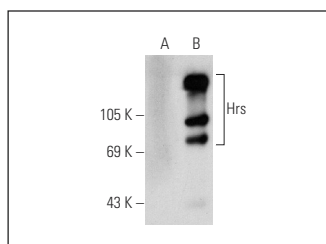
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Hrs (D-6): sc-166843 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Hrs expression in Hrs 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



Hrs (D-6): sc-166843. Western blot analysis of Hrs expression in non-transfected: sc-117752 (A) and mouse Hrs transfected: sc-125474 (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.

## RESEARCH USE

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

## PROTOCOLS

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