Revision 1

Store at -20C

#15087

HRS (D7T5N) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	Endogenous	100	Rabbit IgG	#O14964	9146

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

HRS (D7T5N) Rabbit mAb recognizes endogenous levels of total HRS protein.

Species predicted to react based on 100% sequence homology

Bovine, Dog

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human HRS protein.

Background

Hepatocyte growth factor-regulated tyrosine kinase substrate (HRS) is a ubiquitously expressed, multidomain-containing protein that is tyrosine phosphorylated upon activation of multiple receptor tyrosine kinases (1). HRS contains a proline-rich region, which may mediate interactions with SH3 domain-containing proteins (1). Research studies have also demonstrated that HRS possesses a phosphatidylinositol 3-phosphate-binding FYVE-type zinc finger domain and a coiled-coil domain that target it to membranes of the endosomal compartment (2-4). HRS also possesses a ubiquitin-interacting motif (UIM) that binds ubiquitinated membrane proteins and, in conjunction with Eps15 and STAM proteins of the ESCRT-0 complex, facilitates their sorting through the endosomal compartment for eventual degradation in the lysosome (5-8). Research studies demonstrate that phosphorylation and ubiquitination of HRS play a role in EGFR intracellular trafficking and degradation (9,10).

Background References

1. Komada, M. and Kitamura, N. (1995) *Mol Cell Biol* 15, 6213-21.
2. He, J. et al. (2009) *Proteins* 76, 852-60.
3. Raiborg, C. et al. (2001) *J Cell Sci* 114, 2255-63.
4. Komada, M. et al. (1997) *J Biol Chem* 272, 20538-44.
5. Raiborg, C. et al. (2002) *Nat Cell Biol* 4, 394-8.
6. Hirano, S. et al. (2006) *Nat Struct Mol Biol* 13, 272-7.
7. Bache, K.G. et al. (2003) *J Biol Chem* 278, 12513-21.
8. Urbé, S. et al. (2003) *J Cell Sci* 116, 4169-79.
9. Stern, K.A. et al. (2007) *Mol Cell Biol* 27, 888-98.
10. Tan, X. et al. (2015) *EMBO J* 34, 475-90.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

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