Revision 1

Store at -20C

#93065

MTSS1 (D2H4L) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, IF-IC	H R	Endogenous	95-105	Rabbit IgG	#O43312	9788

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:200
Immunohistochemistry (Paraffin)	1:200
Immunofluorescence (Immunocytochemistry)	1:1600

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

MTSS1 (D2H4L) XP® Rabbit mAb recognizes endogenous levels of total MTSS1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val650 of human MTSS1 protein.

Background

Metastasis suppressor 1 (MTSS1) is a multi-functional scaffold protein that was initially discovered using a differential display technique that identified proteins missing from bladder cancer cell lines (1,2). MTSS1 (also known as Missing in Metastasis or MIM) is a cytoskeletal remodeling protein that contains a C-terminal WH2 actin-binding motif (1,3). Presence of an IMD (IRSp53/MIM homology) domain allows MTSS1 to induce F-actin bundling and filopodia formation in cells (4). MTSS1 binds to and activates Rac, a protein known to promote the formation of filopodia and lamellipodia (5). The receptor tyrosine phosphatase δ (PTPRD) is associated with MTSS1 and is required for MTSS1-dependent cytoskeletal change (6,7). MTSS1 is a SHH responsive gene that can help regulate GLI-dependent transcriptional activity (8).

Background References

1. Lee, Y.G. et al. *Neoplasia* 4, 291-4.
2. Machesky, L.M. and Johnston, S.A. (2007) *J Mol Med* 85, 569-76.
3. Mattila, P.K. et al. (2003) *J Biol Chem* 278, 8452-9.
4. Yamagishi, A. et al. (2004) *J Biol Chem* 279, 14929-36.
5. Bompard, G. et al. (2005) *J Cell Sci* 118, 5393-403.
6. Woodings, J.A. et al. (2003) *Biochem J* 371, 463-71.
7. Gonzalez-Quevedo, R. et al. (2005) *J Cell Biol* 168, 453-63.
8. Callahan, C.A. et al. (2004) *Genes Dev* 18, 2724-9.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **R:** Rat

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