Revision 1

Store at -20C

#55463

RHAMM/CD168 Antibody

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	H	Endogenous	85	Rabbit	#O75330	3161

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

Storage

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

Specificity/Sensitivity

RHAMM/CD168 Antibody recognizes endogenous levels of total RHAMM/CD168 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human RHAMM/CD168 protein. The antigenic peptide spans a region that is 100% conserved among the four isoforms of RHAMM/CD168 reported in Uniprot. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Receptor for Hyaluronic acid-Mediated Motility (RHAMM, known also as CD168 or HMMR) was first identified as a putative receptor for hyaluronic acid (HA) that modulated HA-mediated cell motility (1). RHAMM/CD168 is functionally similar to the HA receptor CD44; however in contrast to CD44, RHAMM/CD168 does not contain a transmembrane domain or a signal peptide leader sequence, and so is not targeted exclusively to the cell membrane (1). RHAMM/CD168 has multiple isoforms; some are reportedly exported to the cell membrane in response to signaling by growth factors and cytokines (e.g., TGF-β) (2, 3), whereas others have been implicated in intracellular functions including mitotic spindle regulation (4). Cell surface RHAMM/CD168 is localized to membrane ruffles, consistent with proteins that regulate cell motility (1). Numerous research studies have reported that the expression of RHAMM/CD168 is positively associated with cancer cell growth, motility and/or metastasis (5-7), in addition to HA-mediated inflammation (8), suggesting the potential for therapeutic approaches that target HA-receptor mediated signaling (9,10).

Background References

1. Hardwick, C. et al. (1992) *J Cell Biol* 117, 1343-50.
2. Samuel, S.K. et al. (1993) *J Cell Biol* 123, 749-58.
3. Naor, D. (2016) *Front Immunol* 7, 39.
4. Tolg, C. et al. (2010) *J Biol Chem* 285, 26461-74.
5. Mele, V. et al. (2017) *Oncotarget* 8, 70617-29.
6. Morera, D.S. et al. (2017) *Br J Cancer* 117, 1507-17.
7. Wang, D. et al. (2016) *Oncotarget* 7, 39957-69.
8. Hauser-Kawaguchi, A. et al. (2018) *Matrix Biol* 78-79, 346-56.
9. Wong, K.M. et al. (2017) *Curr Oncol Rep* 19, 47.
10. Yang, C. et al. (2017) *Theranostics* 7, 1719-34.

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

Cross-Reactivity Key

H: Human

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