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RHAMM Antibody

Catalog # ASC11285

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O75330
Other Accession	NP_036617, 217272802
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	84100
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RHAMM antibody can be used for detection of RHAMM by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 5 g/mL.

Additional Information

Gene ID	3161
Other Names	Hyaluronan mediated motility receptor, Intracellular hyaluronic acid-binding protein, Receptor for hyaluronan-mediated motility, CD168, HMMR, IHABP, RHAMM
Target/Specificity	HMMR;
Reconstitution & Storage	RHAMM antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	RHAMM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HMMR
Synonyms	IHABP, RHAMM
Function	Receptor for hyaluronic acid (HA) (By similarity). Involved in cell motility (By similarity). When hyaluronan binds to HMMR, the phosphorylation of a number of proteins, including PTK2/FAK1 occurs. May also be involved in cellular transformation and metastasis formation, and in regulating extracellular-regulated kinase (ERK) activity. May act as a regulator of adipogenisis (By similarity).

Cellular Location	Cell surface {ECO:0000250|UniProtKB:Q00547}. Cytoplasm. Cytoplasm, cytoskeleton, spindle {ECO:0000250|UniProtKB:Q00547}
Tissue Location	Expressed in testis (PubMed:22965910). Expressed in the breast (PubMed:8890751).

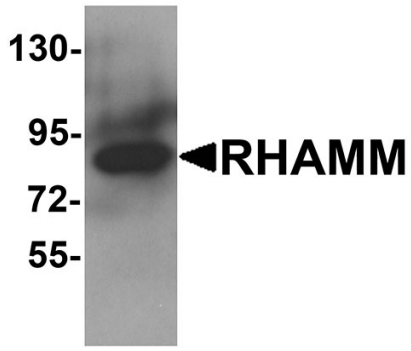
Background

RHAMM Antibody: The hyaluronan-mediated motility receptor, also known as RHAMM, was initially identified as a soluble protein that could be released by sub-confluent migrating cells, promoting cell motility and invasion via interactions with hyaluronan (HA) and the cell surface. While RHAMM is normally poorly expressed in most normal tissues and is not required for embryonic development or normal cell homeostasis functions, its expression is increased during wound repair in response to hypoxia and fibrogenic factors. However, its overexpression is transforming in multiple types of cancers and is required for maintaining RAS transformation. RHAMM associates with BRCA1 and BARD1, attenuating the mitotic-spindle-promoting activity of RHAMM, which may contribute to tumor progression by promoting genomic instability.

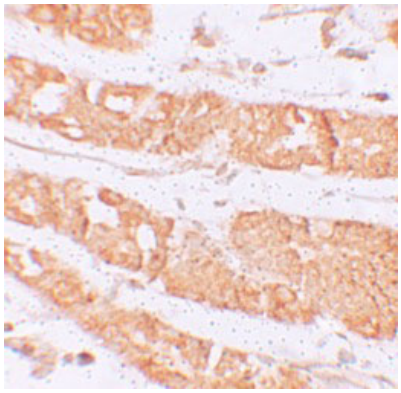
References

Hardwick C, Hoare K, Owens R, et al. Molecular cloning of a novel hyaluronan receptor that promotes tumor cell motility. J. Cell Biol. 1992; 117:1343-50.
Samuel SK, Hurta RA, Spearman MA, et al. TGF-beta 1 stimulation of cell locomotion utilizes the hyaluronan receptor RHAMM and hyaluronan. J. Cell Biol. 1993; 123:749-58.
Hall CL, Yang B, Yang X, et al. Overexpression of the hyaluronan receptor RHAMM is transforming and is also required for H-ras transformation. Cell 1995; 82:19-26.
Maxwell CA, McCarthy J, and Turley E. Cell-surface and mitotic-spindle RHAMM: moonlighting or dual oncogenic functions? J. Cell Sci. 2008; 121:925-32.

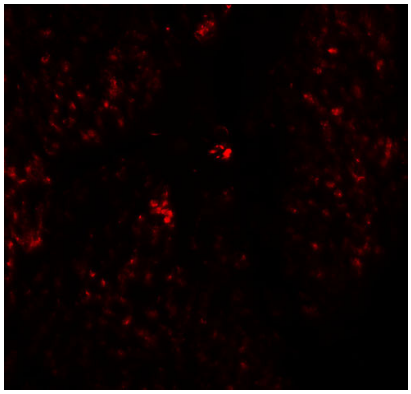
Images



Western blot analysis of RHAMM in rat stomach tissue lysate with RHAMM antibody at 1 µg/mL.



Immunohistochemistry of RHAMM in human stomach tissue with RHAMM antibody at 2.5 µg/mL.



Immunofluorescence of RHAMM in human stomach tissue with RHAM antibody at 20 µg/mL.