SANTA CRUZ BIOTECHNOLOGY, INC.

RHAMM (2F2C9): sc-293170

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Hyaluronic acid (HA) is a nonsulfated glycosaminoglycan that regulates cell adhesion and migration. HA effects are mediated through two receptors, CD44 (also designated HCAM) and the receptor of hyaluronic acid mediated motility (RHAMM). RHAMM, also designated intracellular hyaluronic acid binding protein (IHABP) and CD168, is a matrix receptor, which is linked to the plasma membrane by a GPI anchor and regulates cell motility. RHAMM expression is upregulated in malignant lymphoid tissues and is subsequently implicated in tumor progression and metastasis formation, as well as signal transduction. Although still unclear, RHAMM is thought to exist as several isoforms ranging in size. A variant isoform, designated v4, is a protein that when over-expressed, is thought to be the cause of transformation and metastasis formation in fibroblasts.

REFERENCES

1. Hardwick, C., et al. 1992. Molecular cloning of a novel hyaluronan receptor that mediates tumor cell motility. J. Cell Biol. 117: 1343-1350.
2. Turley, E.A., et al. 1993. Expression and function of a receptor for hyaluronan-mediated motility on normal and malignant B lymphocytes. Blood 81: 446-453.
3. Hofmann, M., et al. 1998. Problems with RHAMM: a new link between surface adhesion and oncogenesis? Cell 95: 591-592.
4. Lokeshwar, V.B. and Selzer, M.G. 2000. Differences in hyaluronic acid-mediated functions and signaling in arterial, microvessel, and vein-derived human endothelial cells. J. Biol. Chem. 275: 27641-27649.
5. Li, H., et al. 2000. Expression of hyaluronan receptors CD44 and RHAMM in stomach cancers: relevance with tumor progression. Int. J. Oncol. 17: 927-932.
6. Ahrens, T., et al. 2001. CD44 is the principal mediator of hyaluronic-acid-induced melanoma cell proliferation. J. Invest. Dermatol. 116: 93-101.

CHROMOSOMAL LOCATION

Genetic locus: HMMR (human) mapping to 5q34.

SOURCE

RHAMM (2F2C9) is a mouse monoclonal antibody raised against amino acids 306-497 of RHAMM of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

RHAMM (2F2C9) is recommended for detection of RHAMM of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RHAMM siRNA (h): sc-40181, RHAMM shRNA Plasmid (h): sc-40181-SH and RHAMM shRNA (h) Lentiviral Particles: sc-40181-V.

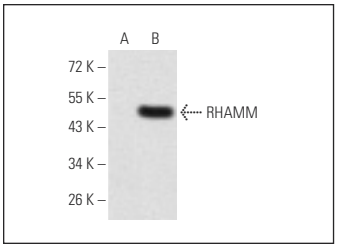
Molecular Weight of RHAMM: 85-90 kDa.

Positive Controls: human RHAMM (306-497)-hIgGFc transfected HEK293 whole cell lysate.

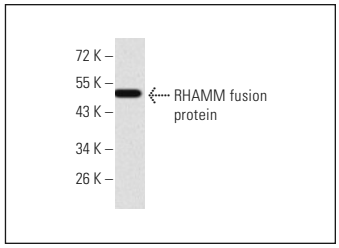
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RHAMM (2F2C9): sc-293170. Western blot analysis of RHAMM expression in non-transfected (**A**) and human RHAMM (306-497)-hIgGFc transfected (**B**) HEK293 whole cell lysates.



RHAMM (2F2C9): sc-293170. Western blot analysis of human recombinant RHAMM (306-497) fusion protein.

RESEARCH USE

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