SANTA CRUZ BIOTECHNOLOGY, INC.

RECK (28): sc-136270

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RECK (reversion-inducing-cysteine-rich protein with Kazal motifs) is a membrane anchored glycoprotein that binds to and inhibits the proteolytic activity of matrix metalloproteinase-9 (MMP-9). The enzymatic activity of MMP-9 facilitates tumor invasion by proteolytically digesting the extracellular matrix, thereby enabling tumor growth, expansion and metastasis. RECK inhibits the secretion and activation of MMP-9 into the extracellular matrix, which results in the inhibition of tumor growth. RECK contains multiple EGF-like repeats and serine-protease inhibitor-like domains. The expression of RECK is suppressed in several tumors and oncogenically transformed cells, suggesting that the loss of RECK activity correlates with transformed phenotypes. Transcriptional activation of RECK is potentially negatively regulated by the Sp1 family of transcription factors, as it contains two Sp1 binding motifs in the promoter region, and in cells transformed with the Ras oncogene, the Sp1 promoter region is essential for repressing RECK gene expression.

REFERENCES

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3. Takahashi, C., Sheng, Z., Horan, T.P., Kitayama, H., Maki, M., Hitomi, K., Kitaura, Y., Takai, S., Sasahara, R.M., Horimoto, A., Ikawa, Y., Ratzkin, B.J., Arakawa, T. and Noda, M. 1998. Regulation of matrix metalloproteinase-9 and inhibition of tumor invasion by the membrane-anchored glycoprotein RECK. Proc. Natl. Acad. Sci. USA 95: 13221-13226.
4. Giambernardi, T.A., Grant, G.M., Taylor, G.P., Hay, R.J., Maher, V.M., McCormick, J.J. and Klebe, R.J. 1998. Overview of matrix metalloproteinase expression in cultured human cells. Matrix Biol. 16: 483-496.
5. Sasahara, R.M., Takahashi, C., Sogayar, M.C. and Noda, M. 1999. Oncogene-mediated downregulation of RECK, a novel transformation suppressor gene. Braz. J. Med. Biol. Res. 32: 891-895.
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7. Sasahara, R.M., Takahashi, C. and Noda, M. 1999. Involvement of the Sp1 site in Ras-mediated downregulation of the RECK metastasis suppressor gene. Biochem. Biophys. Res. Commun. 264: 668-675.

CHROMOSOMAL LOCATION

Genetic locus: RECK (human) mapping to 9p13.3.

SOURCE

RECK (28) is a mouse monoclonal antibody raised against amino acids 559-760 of RECK of mouse origin.

RESEARCH USE

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

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

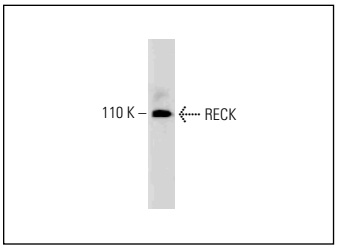
RECK (28) is recommended for detection of RECK of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for RECK siRNA (h): sc-39718, RECK shRNA Plasmid (h): sc-39718-SH and RECK shRNA (h) Lentiviral Particles: sc-39718-V.

Molecular Weight of RECK: 110 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260.

DATA



RECK (28): sc-136270. Western blot analysis of RECK expression in WI-38 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Kirana, C., Peng, L., Miller, R., Keating, J.P., Glenn, C., Shi, H., Jordan, T.W., Maddern, G.J. and Stubbs, R.S. 2019. Combination of laser microdissection, 2D-DIGE and MALDI-TOF MS to identify protein biomarkers to predict colorectal cancer spread. Clin. Proteomics 16: 3.

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.