

RECK (F-20): sc-27116

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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2. Himelstein, B.P., et al. 1997. Transcriptional activation of the matrix metalloproteinase-9 gene in an H-ras and v-myc transformed rat embryo cell line. *Oncogene* 14: 1995-1998.
3. Takahashi, C., et al. 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., et al. 1998. Overview of matrix metalloproteinase expression in cultured human cells. *Matrix Biol.* 16: 483-496.
5. Sasahara, R.M., et al. 1999. Oncogene-mediated downregulation of RECK, a novel transformation suppressor gene. *Braz. J. Med. Biol. Res.* 32: 891-895.
6. Westermarck, J. and Kahari, V.M. 1999. Regulation of matrix metalloproteinase expression in tumor invasion. *FASEB J.* 13: 781-792.
7. Sasahara, R.M., et al. 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 (F-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RECK of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27116 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RECK (F-20) is recommended for detection of precursor and mature RECK of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECK (F-20) is also recommended for detection of precursor and mature RECK in additional species, including equine, canine, bovine and porcine.

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 or AT-3 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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



Try **RECK (G-4): sc-373929** or **RECK (Z8): sc-136270**, our highly recommended monoclonal alternatives to RECK (F-20).