SANTA CRUZ BIOTECHNOLOGY, INC.

Ret (H-300): sc-13104

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Ret proto-oncogene is structurally related to the growing family of tyrosine kinase transmembrane receptors and is involved in GDNF signaling. By alternative splicing, two isoforms of the Ret proto-oncogene product are generated. The isoforms differ from each other by having either 9 or 51 carboxy-terminal amino acids. The Ret gene products include two glycosylated proteins and, in Tunicamycin treated cells, a non-glycosylated protein consistent with the predicted Ret molecular weight based on sequence analysis. Tumor-specific rearrangements of the Ret proto-oncogene have been identified in papillary thyroid carcinomas leading to the formation of different transforming fusion proteins sharing the tyrosine kinase domain of Ret. In contrast to the Ret proto-oncogene, the rearranged forms are constitutively phosphorylated on tyrosine and are translocated from the membrane to the cytoplasm.

CHROMOSOMAL LOCATION

Genetic locus: RET (human) mapping to 10q11.21; Ret (mouse) mapping to 6 F1.

SOURCE

Ret (H-300) is a rabbit polyclonal antibody raised against amino acids 31-330 mapping near the N-terminus of a region conserved between Ret isoforms A and C 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.

APPLICATIONS

Ret (H-300) is recommended for detection of Ret isoforms A and C of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ret (H-300) is also recommended for detection of Ret isoforms A and C in additional species, including canine and bovine.

Suitable for use as control antibody for Ret siRNA (h): sc-36404, Ret siRNA (m): sc-36405, Ret shRNA Plasmid (h): sc-36404-SH, Ret shRNA Plasmid (m): sc-36405-SH, Ret shRNA (h) Lentiviral Particles: sc-36404-V and Ret shRNA (m) Lentiviral Particles: sc-36405-V.

Molecular Weight of Ret precursor: 150 kDa.

Molecular Weght of mature Ret: 170 kDa.

Positive Controls: Ret (h): 293T Lysate: sc-158925 or TT whole cell lysate: sc-364195.

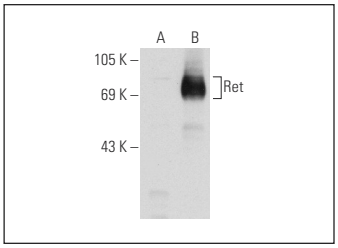
STORAGE

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

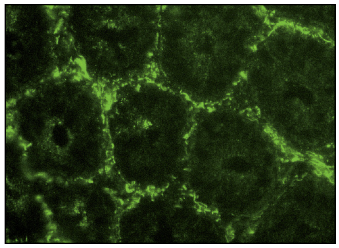
RESEARCH USE

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

DATA



Ret (H-300): sc-13104. Western blot analysis of Ret expression in non-transfected: sc-117752 (**A**) and human Ret transfected: sc-158925 (**B**) 293T whole cell lysates.



Ret (H-300): sc-13104. Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining.

SELECT PRODUCT CITATIONS

1. Drosten, M., et al. 2003. Antitumor capacity of a dominant-negative Ret proto-oncogene mutant in a medullary thyroid carcinoma model. Hum. Gene Ther. 14: 971-982.
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3. Tohda, C. and Joyashiki, E. 2009. Sominone enhances neurite outgrowth and spatial memory mediated by the neurotrophic factor receptor, Ret. Br. J. Pharmacol. 157: 1427-1440.
4. Fusco, D., et al. 2010. The RET51/FKBP52 complex and its involvement in Parkinson disease. Hum. Mol. Genet. 19: 2804-2816.
5. Di Liberto, V., et al. 2011. mGluR2/3 agonist LY379268, by enhancing the production of GDNF, induces a time-related phosphorylation of Ret receptor and intracellular signaling Erk1/2 in mouse striatum. Neuropharmacology 61: 638-645.
6. Nicolini, V., et al. 2011. Interplay between Ret and Fap-1 regulates CD95-mediated apoptosis in medullary thyroid cancer cells. Biochem. Pharmacol. 82: 778-788.
7. Jiao, L., et al. 2011. Rap1GAP interacts with Ret and suppresses GDNF-induced neurite outgrowth. Cell Res. 21: 327-337.
8. DI Cara, G., et al. 2013. Proteomic profiling of Trastuzumab (Herceptin(R))-sensitive and -resistant SKBR-3 breast cancer cells. Anticancer Res. 33: 489-503.