

Ret (C-3): sc-365943

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.

SOURCE

Ret (C-3) is a mouse monoclonal 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ret (C-3) is available conjugated to agarose (sc-365943 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365943 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365943 PE), fluorescein (sc-365943 FITC), Alexa Fluor® 488 (sc-365943 AF488), Alexa Fluor® 546 (sc-365943 AF546), Alexa Fluor® 594 (sc-365943 AF594) or Alexa Fluor® 647 (sc-365943 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365943 AF680) or Alexa Fluor® 790 (sc-365943 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Ret (C-3) is recommended for detection of Ret isoforms A and C of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Ret precursor: 150 kDa.

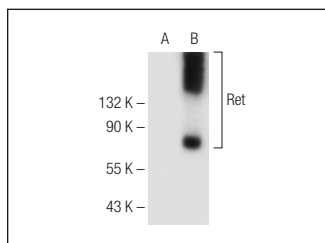
Molecular Weight of mature Ret: 170 kDa.

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

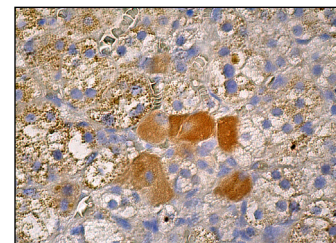
RECOMMENDED SUPPORT REAGENTS

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



Ret (C-3): sc-365943. Western blot analysis of Ret expression in non-transfected: sc-117752 (A) and human Ret transfected: sc-158925 (B) 293T whole cell lysates.



Ret (C-3): sc-365943. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of subset of glandular cells.

SELECT PRODUCT CITATIONS

- Huang, K.L., et al. 2018. Pathogenic germline variants in 10,389 adult cancers. *Cell* 173: 355-370.e14.
- Fan, Y., et al. 2019. Ku80 gene knockdown by the CRISPR/Cas9 technique affects the biological functions of human thyroid carcinoma cells. *Oncol. Rep.* 42: 2486-2498.
- Luo, J., et al. 2019. ATF4 destabilizes Ret through nonclassical GRP78 inhibition to enhance chemosensitivity to bortezomib in human osteosarcoma. *Theranostics* 9: 6334-6353.
- Ieremia, E., et al. 2019. Expanding the clinical spectrum of dermal hyperneury: report of nine new cases and a review of the literature. *Histopathology* 75: 738-745.
- Liu, Y., et al. 2020. Expression and purification of the extracellular domain of wild-type human Ret and the dimeric oncogenic mutant C634R. *Int. J. Biol. Macromol.* 164: 1621-1630.

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.