**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.

**REFERENCES**


**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 IgG 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 HRPR), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocerythrin (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.

**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-IgG BP-HRP: sc-516102 or m-IgG 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-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359880. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limone 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.

**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.

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