

# Ret (6E4C4): sc-101423

## 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 (6E4C4) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 896-1063 of Ret of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ret (6E4C4) is available conjugated to agarose (sc-101423 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-101423 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-101423 PE), fluorescein (sc-101423 FITC), Alexa Fluor® 488 (sc-101423 AF488), Alexa Fluor® 546 (sc-101423 AF546), Alexa Fluor® 594 (sc-101423 AF594) or Alexa Fluor® 647 (sc-101423 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-101423 AF680) or Alexa Fluor® 790 (sc-101423 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Ret (6E4C4) is recommended for detection of Ret 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), 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 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.

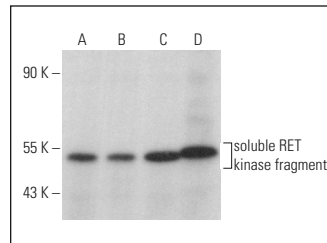
Molecular Weight of Ret precursor: 150 kDa.

Molecular Weight of mature Ret: 170 kDa.

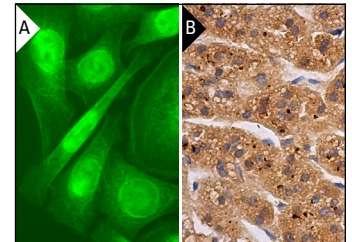
## RECOMMENDED SUPPORT REAGENTS

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 (6E4C4): sc-101423. Western blot analysis of Ret expression in SH-SY5Y (A), SK-N-MC (B) and PC-12 (C) whole cell lysates and rat brain tissue extract (D).



Ret (6E4C4) Alexa Fluor® 488: sc-101423 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A). Ret (6E4C4): sc-101423. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Farhi, J., et al. 2010. Glial cell line-derived neurotrophic factor (GDNF) and its receptors in human ovaries from fetuses, girls, and women. *Fertil. Steril.* 93: 2565-2571.
- Wang, R., et al. 2012. RET fusions define a unique molecular and clinicopathologic subtype of non-small-cell lung cancer. *J. Clin. Oncol.* 30: 4352-4359.

## 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](http://www.scbt.com) for detailed protocols and support products.