



Ret (h): 293T Lysate: sc-158925

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

1. Takahashi, M., et al. 1988. Identification of the Ret proto-oncogene products in neuroblastoma and leukemia cells. *Oncogene* 3: 571-578.
2. Grieco, M., et al. 1990. PTC is a novel rearranged form of the Ret proto-oncogene and is frequently detected *in vivo* in human thyroid papillary carcinomas. *Cell* 60: 557-563.
3. Tahira, T., et al. 1990. Characterization of Ret proto-oncogene mRNAs encoding two isoforms of the protein product in a human neuroblastoma cell line. *Oncogene* 5: 97-102.
4. Takahashi, M., et al. 1991. Cloning and expression of the Ret proto-oncogene encoding a tyrosine kinase with two potential transmembrane domains. *Oncogene* 6: 297-301.
5. Lanzi, C., et al. 1992. Identification of the product of two oncogenic rearranged forms of the Ret proto-oncogene in papillary thyroid carcinomas. *Oncogene* 7: 2189-2194.
6. Hopkin, K. 1994. One gene, four syndromes: the story of Ret. *J. NIH Res.* 6: 33-34.
7. Trupp, M., et al. 1996. Functional receptor for GDNF encoded by the c-Ret proto-oncogene. *Nature* 381: 785-788.

CHROMOSOMAL LOCATION

Genetic locus: RET (human) mapping to 10q11.21.

PRODUCT

Ret (h): 293T Lysate represents a lysate of human Ret transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Ret (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Ret antibodies. Recommended use: 10-20 µl per lane.

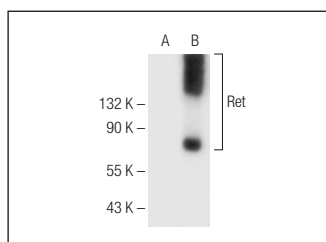
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Ret (C-3): sc-365943 is recommended as a positive control antibody for Western Blot analysis of enhanced human Ret expression in Ret transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

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.

RESEARCH USE

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