

#3221 Store at -20°C

Phospho-Ret (Tyr905) Antibody



100 µl
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

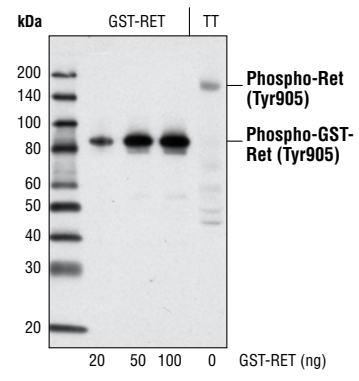
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, Dm	175 kDa	Rabbit**

Background: The Ret proto-oncogene (c-Ret) is a receptor tyrosine kinase that functions as a multicompetent receptor complex in conjunction with other membrane-bound ligand-binding GDNF family receptors (1). Ligands that bind the Ret receptor include the glial cell line-derived neurotrophic factor (GDNF) and its congeners neurturin, persephin and artemin (2-4). Alterations in the corresponding Ret gene are associated with diseases including papillary thyroid carcinoma, multiple endocrine neoplasia (type 2A and 2B), familial medullary thyroid carcinoma and a congenital developmental disorder known as Hirschsprung's disease (1,3). The Tyr905 residue located in the Ret kinase domain plays a crucial role in Ret catalytic and biological activity. Substitution of Phe for Tyr905 dramatically inhibits Ret autophosphorylation activity (5).

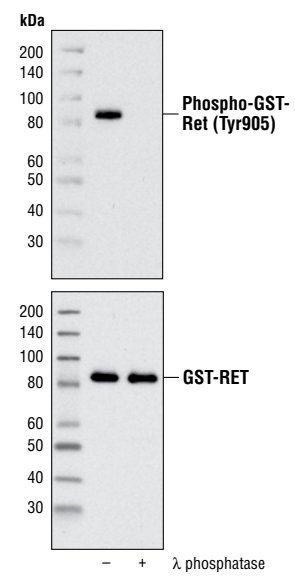
Specificity/Sensitivity: Phospho-Ret (Tyr905) Antibody detects endogenous levels of Ret only when phosphorylated at tyrosine 905.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr905 of human Ret. Antibodies are purified by protein A and peptide affinity chromatography.

- Background References:**
- (1) Airaksinen, M.S. et al. (1999) *Mol. Cell. Neurosci.* 13, 313-325.
 - (2) Takahashi, M. et al. (1989) *Oncogene* 4, 805-806.
 - (3) Manie, S. et al. (2001) *Trends Genet.* 17, 580-589.
 - (4) Tallini, G. and Asa, S. (2001) *Adv. Anat. Pathol.* 8, 345-354.
 - (5) Iwashita, T. et al. (1999) *Oncogene* 18, 3919-3922.



Western blot analysis of recombinant human GST-Ret (His658-Asp1110) and extracts from the TT human medullary thyroid carcinoma cell line using Phospho-Ret (Tyr905) Antibody.



Western blot analysis of recombinant human GST-Ret (His658-Asp1110), untreated or λ phosphatase-treated, using Phospho-Ret (Tyr905) Antibody (upper) and Ret Antibody #3220 (lower).

Entrez-Gene ID #5979
Swiss-Prot Acc. #P07949

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
 Western Blotting 1:1000
 Immunoprecipitation 1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.