

Store at  
-20C  
#14556**Ret (E1N8X) XP<sup>®</sup> Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W, IHC-P, IF-IC, FC-FP	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 150, 175	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P07949	<b>Entrez-Gene Id:</b> 5979
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**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

**Dilution**

1:1000  
1:250 - 1:1000  
1:100 - 1:400  
1:200 - 1:800

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

For a carrier free (BSA and azide free) version of this product see product #49887.

**Specificity/Sensitivity**

Ret (E1N8X) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total Ret protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro320 of human Ret protein.

**Background**

The Ret proto-oncogene (c-Ret) is a receptor tyrosine kinase that functions as a multicomponent 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). Research studies have shown that 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 Tyr at position 905 dramatically inhibits Ret autophosphorylation activity (5).

**Background References**

1. Airaksinen, M.S. et al. (1999) *Mol Cell Neurosci* 13, 313-25.
2. Takahashi, M. et al. (1989) *Oncogene* 4, 805-6.
3. Manié, S. et al. (2001) *Trends Genet* 17, 580-9.
4. Tallini, G. and Asa, S.L. (2001) *Adv Anat Pathol* 8, 345-54.
5. Iwashita, T. et al. (1999) *Oncogene* 18, 3919-22.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse

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