



20150218ML

Anti-Mouse Ret (#4G1)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	103-M192
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat) immunized with purified recombinant mouse Ret extracellular domain. IgG1 fraction of the culture supernatant was purified by Protein G affinity chromatography.

Target Background

Synonyms (Target):	Ret; PTC; RET9; RET51; c-Ret
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The GDNF family of neurotrophic factors constitute a new family of factors within the TGFβ superfamily. These proteins are potent survival factors for various central and peripheral neurons during development and in the adult animal. The GDNF family members (GDNF, neurturin and persephin) signal through multicomponent receptors that consist of the Ret receptor tyrosine kinase and one of four glycosylphosphatidylinositol (GPI)linked ligandbinding subunits (GFRα1, 2, and 4 are the preferred ligandbinding subunits for GDNF, neurturin and persephin, respectively. To date, the preferred ligand for GFRα3 has not been identified. The Ret tyrosinekinase receptor is encoded by the c-ret protooncogene. Mutations of the ret gene have been associated with various human diseases affecting tissues derived from the neural crest, including Hirschsprung's disease, multiple endocrine neoplasia MEN2A and MEN2B, and familial medullary thyroid carcinoma. Mouse Ret cDNA encodes a 1115 amino acid (aa) residue transmembrane tyrosine kinase with a 28 aa residue signal peptide, a 609 aa residue cysteine-rich extracellular domain and a 456 aa residue cytoplasmic domain. A cadherin-related sequence is also present in the extracellular domain of Ret. Human and mouse Ret share 83% amino acid sequence homology (77% homology in the extracellular domain and 93% homology in the cytoplasmic domain). Although Ret does not bind GDNF ligands directly, the extracellular domain of Ret binds the GDNFGFRα complex with high affinity and is a potent GDNF antagonist in the presence of soluble GFRα.

Database References Target

Protein RefSeq:	NP_033076.2
Uniprot ID:	P35546
mRNA RefSeq:	NM_009050.2

Product Specifications

Host	Rat
Reactivity against	Mouse
Clonality	Monoclonal Antibody
Clone	(#4G1)
Isotype	IgG1
Purification	Protein A/G chromatography
Antigen	EC domain of recombinant mouse Ret
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody was selected for its ability to detect mouse Ret in western blots. In these formats, this antibody shows certain cross-reactivity with recombinant human Ret.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB

Recommended usage:

Western Blot: 1:100 - 1:1000

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!