Mouse FGF R3 Antibody

Monoclonal Rat IgG_{2A} Clone # 136812

Catalog Number: MAB710

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse FGF R3 in direct ELISAs. In direct ELISAs, 100% cross-reactivity with the (IIIb) and (IIIc) isoforms of recombinant human FGF R3 is observed. Neutralizes the bioactivity of mouse FGF R3. Functions equally as well in the neutralization of recombinant mouse (rm) FGF R3α (IIIb) and rmFGF R3α (IIIc).
Source	Monoclonal Rat IgG_{2A} Clone # 136812
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse FGF R3 Glu21-Tyr369 (Asn310Ile, Ala354 del) (predicted) Accession # NP_001156689
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

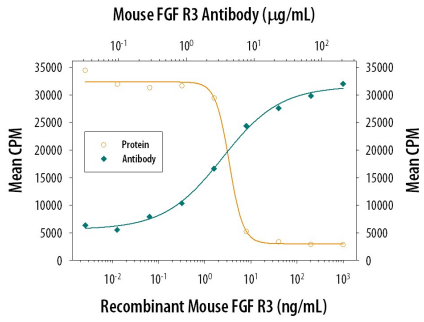
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Neutralization	Measured by its ability to neutralize FGF R3-mediated inhibition of proliferation in the NR6R-3T3 mouse fibroblast cell line. The Neutralization Dose (ND_{50}) is typically 3-12 µg/mL in the presence of 12 ng/mL Recombinant Mouse FGF R3 (IIIc) Fc Chimera, 0.3 ng/mL Recombinant Human FGF acidic, and 10 µg/mL heparin.

DATA

Neutralization



FGF R3 Inhibition of FGF acidic-dependent Cell Proliferation and Neutralization by Mouse FGF R3 Antibody. Recombinant Mouse FGF R3 (IIIc) Fc Chimera (Catalog # 710-MF) inhibits Recombinant Human FGF acidic (Catalog # 232-FA) induced proliferation in the NR6R-3T3 mouse fibroblast cell line in a dose-dependent manner (orange line). Inhibition of Recombinant Human FGF acidic (0.3 ng/mL) activity elicited by Recombinant Mouse FGF R3 (IIIc) Fc Chimera (12 ng/mL) is neutralized (green line) by increasing concentrations of Rat Anti-Mouse FGF R3 Monoclonal Antibody (Catalog # MAB710). The ND_{50} is typically 3-12 µg/mL in the presence of heparin (10 µg/mL).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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Mouse FGF R3 Antibody

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Catalog Number: MAB710

BACKGROUND

Fibroblast growth factors (FGFs) comprise a family of at least eighteen structurally related proteins that are involved in a multitude of physiological and pathological cellular processes, including cell growth, differentiation, angiogenesis, wound healing and tumorgenesis. The biological activities of the FGFs are mediated by a family of type I transmembrane tyrosine kinases which undergo dimerization and autophosphorylation after ligand binding. Four distinct genes encoding closely related FGF receptors, FGF R1-4, are known. All four genes for FGF Rs encode proteins with an N-terminal signal peptide, three immunoglobulin (Ig)-like domains, an acid-box region containing a run of acidic residues between the IgI and IgII domains, a transmembrane domain and the split tyrosine-kinase domain. Multiple forms of FGF R1-3 are generated by alternative splicing of the mRNAs. A frequent splicing event involving FGF R1 and 2 results in receptors containing all three Ig domains, referred to as the α isoform, or only IgII and IgIII, referred to as the β isoform. Only the α isoform has been identified for FGF R3 and FGF R4. Additional splicing events for FGF R1-3, involving the C-terminal half of the IgIII domain encoded by two mutually exclusive alternative exons, generate FGF receptors with alternative IgIII domains (IIIb and IIIc). A IIIa isoform which is a secreted FGF binding protein containing only the N-terminal half of the IgIII domain plus some intron sequences has also been reported for FGF R1. Mutations in FGF R1-3 have been found in patients with birth defects involving craniosynostosis. The complex patterns of expression of these receptors as well as the specificity of their interactions with the various FGF ligand family members are being investigated.

References:

1. Galzie, Z. *et al*. (1997) Biochem. Cell Biol. **75**:669.
2. Burke, D. *et al*. (1998) Trends Biochem. Sci. **23**:59.

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