Human FGF-4 Antibody

Monoclonal Mouse IgG_1 Clone # 19805

Catalog Number: MAB235

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human FGF-4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with bovine FGF acidic, recombinant human (rh) FGF acidic, bovine FGF basic, rhFGF basic, or rhβ-ECGF is observed. The antibody will not neutralize the biological activity of bovine FGF acidic, rhFGF acidic, bovine FGF basic, rhFGF basic, rhFGF-5, rhFGF-6, or rhβ-ECGF.
Source	Monoclonal Mouse IgG_1 Clone # 19805
Purification	Protein A or G purified from ascites
Immunogen	*E. coli*-derived recombinant human FGF-4 Ala31-Leu206 Accession # P08620
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 as a 0.2 µm filtered solution in PBS.

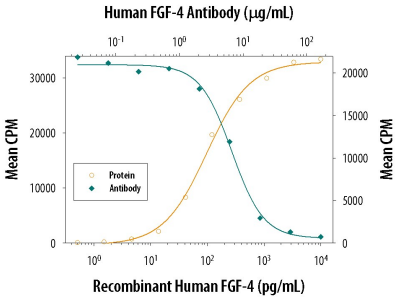
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human FGF−4 (Catalog # 235-F4)
Neutralization	Measured by its ability to neutralize FGF−4-induced proliferation in the NR6R−3T3 mouse fibroblast cell line. Rizzino, A. *et al.* (1988) Cancer Res. **48**:4266. The Neutralization Dose (ND_{50}) is typically 5-8 µg/mL in the presence of 0.5 ng/mL Recombinant Human FGF−4.	

DATA

Neutralization



Cell Proliferation Induced by FGF-4 and Neutralization by Human FGF-4 Antibody. Recombinant Human FGF-4 (Catalog # 235-F4) stimulates proliferation in the NR6R-3T3 mouse fibroblast cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human FGF-4 (0.5 ng/mL) is neutralized (green line) by increasing concentrations of Mouse Anti-Human FGF-4 Monoclonal Antibody (Catalog # MAB235). The ND_{50} is typically 5-8 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.

BACKGROUND

FGF-4, the product of a developmentally regulated gene (*hst*-1), is a member of the FGF family that is efficiently secreted. The gene for FGF-4 (also known as FGFK or K-FGF for Kaposi sarcoma-associated FGF) was initially discovered as a transforming gene by the NIH-3T3 focus formation assay using DNA derived from human tumors (including stomach and colon cancers, hepatocellular carcinomas, and Kaposi's sarcomas). FGF-4 does not seem to be expressed in normal adult tissues. However, expression of the gene is spatially and temporally regulated during embryonic development. The murine homologue of human FGF-4 has been cloned and shown to be 82% homologous to the human protein at the amino acid sequence level. Human FGF-4 has been shown to exhibit cross species activity.

In vitro, FGF-4 is mitogenic for fibroblasts and endothelial cells. FGF-4 has been shown to be a potent angiogenesis promoter *in vivo*. FGF-4 has potent transforming potential apparently through an autocrine mechanism of action. FGF-4 plays a key role in limb development and has been identified as the molecular mediator of the activities of the apical ectodermal ridge that is required for directing the outgrowth and patterning of vertebrate limbs.

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