

Product No. F-2153
Lot 044H0296

Monoclonal Anti-Human Fibroblast Growth Factor-4
IgG Fraction of Mouse Ascites Fluid
Clone 19805.11

Monoclonal Anti-Human Fibroblast Growth Factor-4 (FGF-4) (IgG1 isotype) is purified from the 19805.11 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice. Human, recombinant fibroblast growth factor-4 (rhFGF-4), expressed in *E. coli*, was used as immunogen. The antibody is purified by Protein A affinity chromatography. Monoclonal Anti-FGF-4 is provided lyophilized from phosphate buffered saline, pH 7.4, to which no preservatives are added.

Description

Fibroblast growth factor-4 is a member of the FGF family, a group of 7 homologous polypeptides that act upon a variety of cells and produce biological actions that may include cell proliferation, migration and differentiation.^{1,2} FGF-4, also known as oncogene products *hst-1* and K-FGF, has strong transforming potential and is a potent angiogenic factor, being expressed in several highly vascularized tumors.^{3,4} Anti-Human FGF-4 neutralizes the bioactivity of recombinant, human FGF-4 but not that of bovine or human, recombinant FGF-Basic, bovine or human, recombinant FGF-Acidic, human, recombinant FGF-5, human, recombinant FGF-6, or human, recombinant β -ECGF. In indirect ELISA and immunoblotting, this antibody displays no cross-reactivity with bovine or human, -recombinant FGF-Basic, bovine or human, recombinant FGF-Acidic, or human, recombinant β -ECGF.

Performance

Anti-Human FGF-4 is tested for its ability to neutralize the bioactivity of rhFGF-4 in a cell proliferation assay using FGF-4 responsive NR6-3T3 fibroblasts.⁵ The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhFGF-4, which is present at five times its own EC₅₀ (the concentration of rhFGF-4 producing a one-half maximal bioactivity without antibody). In this bioassay, rhFGF-4 was pre-incubated with various dilutions of the antibody for

1 hour at 37°C in a 96-well microtiter plate. Then, the antigen-antibody mixtures were added to quiescent confluent NR6-3T3 cultures in 0.1 ml containing 0.5 ng/ml rhFGF-4. This was incubated for 20 hours at 37°C in a 5% CO₂ humidified incubator and then pulsed for 2 hours with ³H-thymidine. Cells were harvested onto glass filters and the ³H-thymidine incorporation into DNA was measured.

Product Information

Mass/vial:	0.5 mg
Immunogen:	Human, recombinant FGF-4
Isotype:	Mouse IgG1
Formulation:	Lyophilized from PBS without additives
Endotoxin:	<10 ng/vial by LAL method
Bioactivity:	ND ₅₀ = 7.6 μ g/ml
Indirect ELISA:	0.5 μ g/ml detects 1.5 ng/well of rhFGF-4
Indirect	
Immunoblotting:	1 μ g/ml antibody detects rhFGF-4 at 20 ng/lane under both reducing and non-reducing conditions
Sterility:	0.2 μ m-filtered, aseptic fill

Reconstitution and Use

To one vial of lyophilized powder, add 1 ml of sterile-filtered PBS to produce a 0.5 mg/ml stock solution of Anti-Human FGF-4. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

Prior to reconstitution, store at -20°C for 6 months. Reconstituted product may be stored at 0-5°C for up to one month. For prolonged storage, freeze in working aliquots at -20°C. Avoid repeated freezing and thawing.

References

1. Gospodarowicz, D., The Fibroblast Growth Factor Family, Baird, A, and Klagsbrun, M., (eds.), Ann. NY Acad. Sci., **638**, 1 (1991).
2. Burgess, W., and Maciag, T., Ann. Rev. Biochem., **58**, 575 (1989).
3. Yoshida, T., et al., Ann. NY Acad. Sci., **638**, 27 (1991).
4. Theillet, C., et al., Oncogene, **4**, 915 (1989).
5. Rizzino, A., et al., Cancer Res., **48**, 4266 (1988).

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Issued 06/94.