Anti-bovine FGF acidic Antibody

ORDERING INFORMATION

Catalog Number: AB-32-NA

Lot Number: P06

Size: 1 mg

Formulation: 0.2 μm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: FGF acidic

Antigen: bovine FGF acidic

Ig class: rabbit IgG

Applications: Neutralization of bioactivity
Western blot
ELISA

Preparation

Produced in rabbits immunized with purified, bovine fibroblast growth factor acidic (bFGF acidic). Total IgG was purified by Protein A affinity chromatography.

Formulation

Lyophilized from a 0.2 μm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Endotoxin Level

< 0.1 EU per 1 μg of the antibody as determined by the LAL method.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 1 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to neutralize the biological activity of bovine FGF acidic. It will also neutralize the biological activity of rhFGF acidic, although 5 times the amount of IgG is required. In western blot analysis and direct ELISA, this antibody will recognize both bovine FGF acidic and rhFGF acidic. In direct ELISA, this antibody shows no cross-reactivity with other cytokines tested.[1]

Neutralization of FGF acidic Bioactivity

The exact concentration of antibody required to neutralize FGF acidic activity is dependent on the cytokine concentration, cell type, growth conditions and the type of activity studied. To provide a guideline, R&D Systems has determined the neutralization dose for this antibody under a specific set of conditions. The **Neutralization Dose$_{50}$ (ND$_{50}$)** for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when that cytokine is present at a concentration just high enough to elicit a maximum response.

As shown in figures 1 and 2 on the next page, the ND$_{50}$ for this lot of anti-FGF acidic antibody was determined to be approximately 1 - 3 μg/mL in the presence of 0.75 ng/mL of bovine FGF acidic, using FGF acidic responsive NR6-3T3 fibroblasts as target cells. When rhFGF acidic was used, the ND$_{50}$ was approximately five times higher. The specific conditions are described in the figure legends.

Additional Applications

Direct ELISA - This antibody can be used at 0.5 - 1.0 μg/mL with the appropriate secondary reagents to detect bovine and human FGF acidic. The detection limit for FGF acidic is approximately 0.6 ng/well.

Western blot - This antibody can be used at 1 - 2 μg/mL with the appropriate secondary reagents to detect bovine and human FGF acidic. The detection limit for FGF acidic is approximately 20 ng/lane and 5 ng/lane under non-reducing and reducing conditions, respectively. Because this antibody preparation is a total IgG fraction, complete monospecificity cannot be assumed.

Optimal dilutions should be determined by each laboratory for each application.

R&D Systems, Inc.

1-800-343-7475

Figure 1

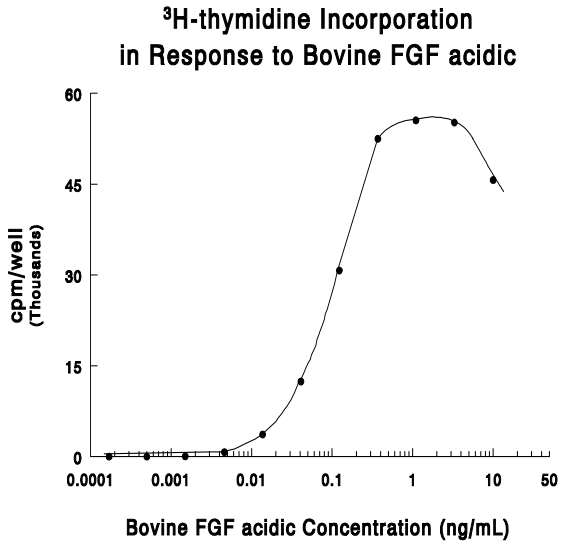
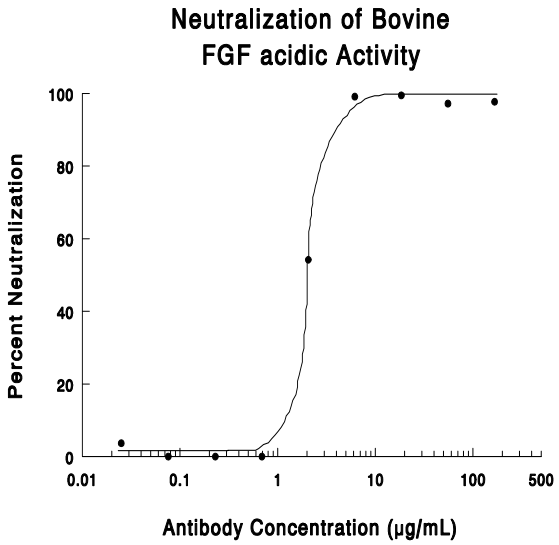


Figure 2



The biological activity of bovine FGF acidic was measured in a mitogenic assay using the FGF acidic responsive NR6 fibroblasts. **Figure 1** shows that cell stimulation, as measured by ^{3}H-thymidine incorporation, is dependent on the concentration of bovine FGF acidic. The ED_{50} for this effect is typically 0.05 - 0.15 ng/mL of bovine FGF acidic. Assuming a nominal ED_{50} of 0.15 ng/mL, five times the ED_{50} of bovine FGF acidic (0.75 ng/mL) was used to assess the neutralizing activity of this lot of antibody. As seen in **figure 2**, the ND_{50} for this lot of antibody is approximately 1 - 3 µg/mL.

[1]rhANG, rhAR, rhAnnexin V, rhB7-1, rhB7-2, rmB7-2, rhBTC, rhβ-NGF, rhBDNF, rmC10, rhCD4, rhCD8, rhCD28, rhCNTF, rrCNTF, rhEGF, rhENA-78, rhEpo, rhFGF basic, rhFGF-4, rhFGF-5, rhFGF-6, rhFGF-7, rhFGF-9, rhG-CSF, rhG-CSF Rα, rmG-CSF, rhGDNF, rhGM-CSF, rhGM-CSF Rα, rmGM-CSF, rhGROα, rhGROβ, rhGROγ, rhHB-EGF, rhHRG-α, rhHGF, rhI-309, rhIFN-γ, rmIFN-γ, rhIGF-I, rhIGF-I R, rhIGF-II, rhIL-1α, rhIL-1 RI, rhIL-1 RII, rmIL-1α, rhIL-1β, rmIL-1β, rrIL-1β, rhIL-1ra, rmIL-1ra, rhIL-2, rhIL-2 sRα, rhIL-2 sRβ, rhIL-2sRγ, rmIL-2, rhIL-3, rhIL-3 sRα, rmIL-3, rhIL-4, rhIL-4 sR, rmIL-4, rhIL-5, rhIL-5 sRα, rhIL-5 sRβ, rmIL-5, rhIL-6, rhIL-6 sR, rmIL-6, rhIL-7, rhIL-7 R, rmIL-7, rhIL-8, rhIL-9, rmIL-9, rhIL-9 R, rhIL-10, rhIL-10 R, rmIL-10, rmIL-10 R, rhIL-11, rhIL-12, rmIL-12, rhIL-13, rmIL-13, rhIL-15, rhIP-10, rhJAK-1, rmJAK-1, rmJAK-2, rmJE, rmKC, rhLIF, rhLIF R, rmLIF, rhM-CSF, rmM-CSF, rhMCP-1, rhMCP-1 R, rhMCP-2, rhMCP-3, rhMidkine, rhMIF, rhMIP-1α, rmMIP-1α, rhMIP-1β, rmMIP-1β, rmMIP-2, rhNT-3, rhNT-4, rhOSM, rhPD-ECGF, hPDGF, pPDGF, rhPDGF-AA, rhPDGF-AB, rhPDGF-BB, rhPDGF Rα, rhPlGF, rhPTN, rhRANTES, rhSCF, rmSCF, rhsgp130, rhSLPI, rhSTAT-1, rmSTAT-3, rmSTAT-4, hTfR, rhTGF-α, rhTGF-β1, rhTGF-β2, rhTGF-β3, raTGF-β5, rhLAP (TGF-β1), rhLatent TGF-β1, rhTGF-β sRII, rhTGF-β sRIII, rhTNF-α, rmTNF-α, rrTNF-α, rhTNF-β, rhsTNF RI, rhsTNF RII, rhTPO, rmTPO, rhVEGF, rmVEGF