Anti-human FGF-16 Antibody

ORDERING INFORMATION

Catalog Number: AF1212

Lot Number: UTE01

Size: 100 µg

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

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human FGF-16

Immunogen: *E. coli*-derived rhFGF-16

Ig Type: sheep IgG

Applications: Neutralization of bioactivity
Western blot
Direct ELISA

Preparation
Produced in sheep immunized with purified, *E. coli*-derived, recombinant human Fibroblast Growth Factor 16 (rhFGF-16). Human FGF-16 specific IgG was purified by human FGF-16 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 0.1 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 human FGF-16 bioactivity.

Neutralization of Human FGF-16 Bioactivity
The exact concentration of antibody required to neutralize human FGF-16 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.

The ND$_{50}$ for this lot of anti-human FGF-16 antibody was determined to be approximately 3 - 9 µg/mL in the presence of 100 ng/mL of rhFGF-16, using the NR6R-3T3 cell line. The specific conditions are described in the figure legends.

Additional Applications
Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human FGF-16. The detection limit for rhFGF-16 is approximately 2 ng/lane under non-reducing and reducing conditions.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human FGF-16. The detection limit for rhFGF-16 is approximately 1 ng/well. In this format, this antibody shows less than 1% cross-reactivity with rhFGF acidic, rhFGF basic, rhFGF-3, -4, -5, -6, -7, -9, -10, -11, -12, -13, -17, -18, -19, -21, -23, rmFGF-8b and rmFGF-15.

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

R&D Systems, Inc.
1-800-343-7475

Figure 1

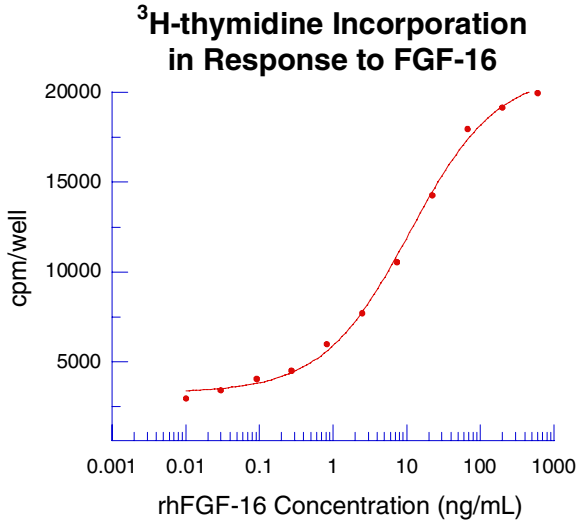

Figure 2

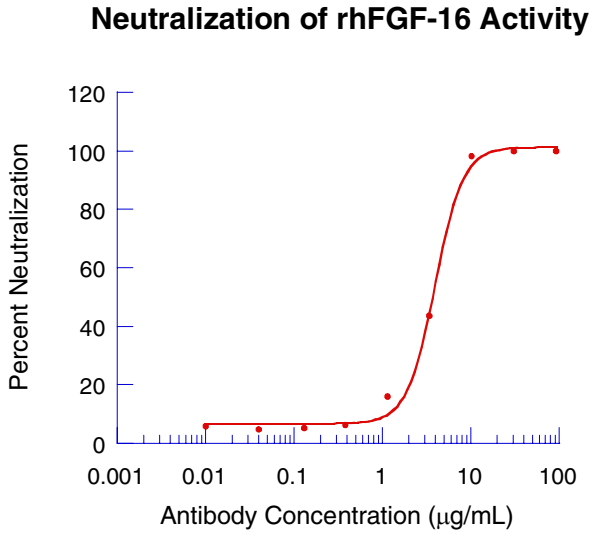

Figure 1
Human FGF-16 stimulates the ^{3}H-thymidine incorporation by NR6R-3T3 fibroblasts in a dose-dependent manner. (Rizzino, A. *et al.*, 1988, Cancer Res. **48**:4266 - 4271). The ED_{50} for this effect is typically 7.5 - 30 ng/mL.

Figure 2
To measure the ability of the antibody to neutralize the bioactivity of human FGF-16 on NR6R-3T3 fibroblasts, human FGF-16 was incubated with various concentrations of the antibody for 1 hour at 37° C in a 96 well plate. Following this preincubation period, the antigen-antibody mixture was added to quiescent confluent cultures of NR6R-3T3 cells in DMEM with 2% bovine plasma-derived serum. The assay mixture, in a total volume of 100 μL, containing antibody at the concentrations indicated, human FGF-16 at 100 ng/mL, was incubated at 37° C for 18 hours in a humidified CO_2 incubator. ^{3}H-thymidine was added during the final 2 hours of incubation. The cells were subsequently detached and harvested onto glass fiber filters and the ^{3}H-thymidine incorporated into DNA was determined. The ND_{50} of the antibody is approximately 3 - 9 μg/mL.