Species Reactivity: Human

Specificity: Detects Follistatin-related Gene Protein/FLRG in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant mouse FLRG is observed.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity-purified

Immunogen: Mouse myeloma cell line NS0-derived recombinant human FLRG Met27-Val263

Accession #: O95633

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.

Recommended Concentration

Sample

Western Blot

0.1 μg/mL Recombinant Human Follistatin-related Gene Protein/FLRG (Catalog # 1288-F3)

Neutralization

Measured by its ability to neutralize Follistatin-related Gene Protein/FLRG inhibition of Activin A-dependent hemoglobin expression in the K562 human chronic myelogenous leukemia cell line. The Neutralization Dose (ND₅₀) is typically 1-4 μg/mL in the presence of 0.1 μg/mL Recombinant Human Follistatin-related Gene Protein/FLRG and 7.5 ng/mL Recombinant Human/Mouse/Rat Activin A.

Neutralization

Human Follistatin-related Gene Protein/FLRG Inhibition of Activin A-induced Hemoglobin Expression and Neutralization by Human Follistatin-related Gene Protein/FLRG Antibody.

Recombinant Human Follistatin-related Gene Protein/FLRG Antibody inhibits Recombinant Human/Mouse/Rat Activin A (Catalog # 338-AC) induced hemoglobin expression in the K562 human chronic myelogenous leukemia cell line in a dose-dependent manner (orange line), as measured by the pseudoperoxidase activity. Inhibition of Recombinant Human/Mouse/Rat Activin A (7.5 ng/mL) activity elicited by Recombinant Human Follistatin-related Gene Protein/FLRG (0.1 μg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human Follistatin-related Gene Protein/FLRG Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1288). The ND₅₀ is typically 1-4 μg/mL.

Preparation and Storage

Reconstitution

Reconstitute at 0.2 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.
Follistatin-related gene protein (FLRG), also known as follistatin-like 3 (FSTL3), is a glycoprotein belonging to the follistatin-module protein family. Human FLRG cDNA encodes a 263 amino acid (aa) residue protein with a putative 26 aa signal peptide, an N-terminal domain, two cysteine-rich follistatin-like domains (FS) and a C-terminal acidic domain. Compared to follistatin, FLRG lacks the third FS domain found in follistatin. In addition, FLRG also lacks the heparin-binding domain found within the first amino-terminal FS domain of follistatin. Mouse and human FLRG share approximately 83% aa sequence homology. Like follistatin, FLRG has been shown to bind and inhibit the activities of TGF-β family ligands including activin, BMP-2, -6, -7 and GDF-8/myostatin. While both FLRG and follistatin are located in a wide and overlapping range of adult and fetal tissue, their sites of peak expression differ: FLRG most highly in heart, lung, kidney, placenta and testis, while follistatin is highest in ovary and pituitary. The expression of FLRG is upregulated by TGF-β and activin signaling through Smad proteins. Although FLRG is a secreted protein in many cell types, it has also been localized to the nuclear compartment in HeLa, 293 and CHO cells.

References: