

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse FLRG in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody shows 50-100% cross-reactivity with recombinant human FLRG.
Source	Monoclonal Rat IgG _{2A} Clone # 210725
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse FLRG Val24-Val256 Accession # Q9EQC7
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	1 µg/mL	Recombinant Mouse Follistatin-related Gene Protein/FLRG (Catalog # 1255-F3)

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

Follistatin-Related Gene Protein (FLRG), also known as follistatin-like 3 (FSTL3) is a glycoprotein belonging to the follistatin-module protein family. Mouse FLRG cDNA encodes a 256 amino acid (aa) residue protein with a putative 23 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 (1-5).

References:

1. Tsuchida, K. *et al.* (2000) J. Biol. Chem. **275**:40778.
2. Sidis, Y. *et al.* (2002) Endocrinology **143**:1613.
3. Tortoriello, D.V. *et al.* (2001) Endocrinology **142**:3426.
4. Hill, J. *et al.* (2002) J. Biol. Chem. **277**:40735.
5. Bartholin, L. *et al.* (2001) Oncogene **20**:5409.