

**DESCRIPTION**

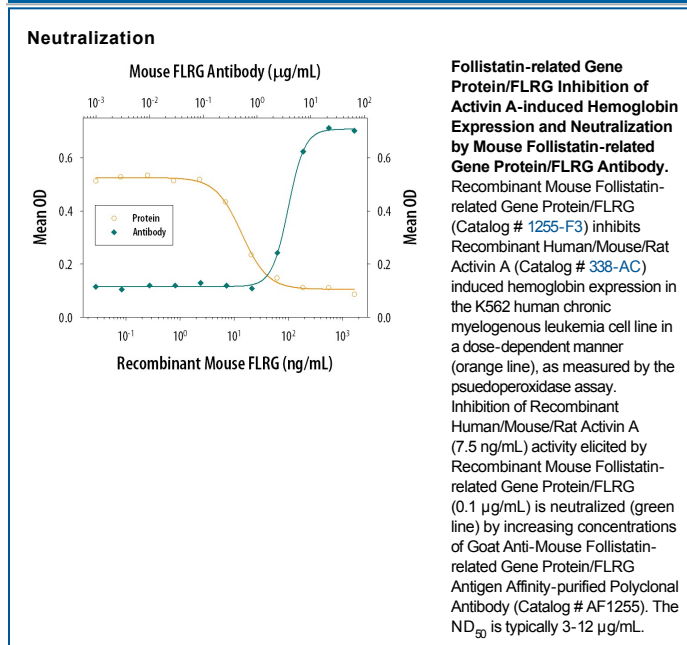
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Follistatin-related Gene Protein/FLRG in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 50% cross-reactivity with recombinant human FLRG is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Follistatin-related Gene Protein/FLRG Val24-Val256 Accession # Q9EQC7
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Follistatin-related Gene Protein/FLRG (Catalog # 1255-F3)
<b>Immunohistochemistry</b>	5-15 µg/mL	Perfusion fixed frozen sections of mouse skin
<b>Neutralization</b>	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 (ND <sub>50</sub> ) is typically 3-12 µg/mL in the presence of 0.1 µg/mL Recombinant Mouse Follistatin-related Gene Protein/FLRG and 7.5 ng/mL Recombinant Human/Mouse/Rat Activin A.	

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### 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- $\beta$  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- $\beta$  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.