

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse FGL2 in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 829321
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived mouse FGL2 Val20-Pro432 Accession # P12804
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

FGL2 (fibrinogen-like protein 2), also called fibroleukin, is a 64-70 kDa secreted glycoprotein of the Fibrinogen-like superfamily. It has prothrombinase activity and also promotes T regulatory (T_{reg}) activity (1-6). The mouse FGL2 gene encodes a 432 amino acid (aa) protein that contains a 19 aa signal sequence and a 413 aa mature sequence with a coiled-coil region and a fibronectin C-terminal homology domain or FRED (1, 2). A 260-280 aa FGL2 complex is thought to be a tetramer formed by covalent disulfide linkage of dimers that are associated via coiled-coil interactions (2, 3). Mature mouse FGL2 shares 91% aa identity with rat FGL2, and 77-80% aa identity with human, equine, porcine, bovine and canine FGL2. FGL2 appears to have two modes of action. One mode involves its prothrombinase activity, which requires calcium and acidic phospholipids (4). This mode is thought to be active during hepatitis viral infections when FGL2, produced by macrophages in response to IFN-γ, induces hepatic apoptosis and fibrin deposition (7). In addition, FGL2 produced by endothelial cells in response to TNF-α within cardiac xenografts or allografts promotes coagulation during acute vascular rejection (7-9). A second mode of action involves soluble (not phospholipid-associated) FGL2 and is independent of prothrombinase activity (2). Soluble FGL2 is required for T_{reg} function, and directly suppresses DC, T, and B cell immune reactivity; consequently, some FGL2-deficient mice develop autoimmune glomerulonephritis (5, 6). *In vitro*, soluble FGL2 can skew T cell polarization toward Th2 and inhibit proliferation of stimulated T cells and maturation of DC (6). In pregnancy, fetal trophoblast cells secrete FGL2. The immune suppressive mode of FGL2 may prevent early fetal loss; however, the procoagulant mode is thought to mediate infection-triggered abortion (10).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.