

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Follistatin-like 1/FSTL1 in direct ELISAs.
Source	Monoclonal Rat IgG _{2B} Clone # 229001R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Follistatin-like 1/FSTL1 Met1-Ile308 Accession # Q12841
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

ELISA 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

Follistatin-like 1 (FSL1 or FSTL1), also known as FRP (follistatin-related protein), Flik (follistatin-like), and TSC-36 (TGF-β1-stimulated clone 36), is a secreted 45-55 kDa extracellular glycoprotein belonging to the BM-40/SPARC/Osteonectin family (1-3). The human FSTL1 cDNA encodes 308 amino acids (aa), including a 20 aa signal sequence, a cysteine-rich Follistatin (EGF- and kazal-like) domain, two apparently non-functional EF-hand calcium-binding motifs, and a von Willebrand Factor C homology domain (1, 3). Mature human FSTL1 shares 94%, 95%, 98% and 99% aa identity with mouse, rat, bovine and equine FSTL1, respectively. FSTL1 was first identified as a TGF-beta-induced protein from a mouse osteoblast cell line (4). It is ubiquitously expressed in early mouse development, but is mainly mesenchymal later in development (5). In humans, FSTL1 is a common rheumatoid arthritis auto-antigen (2). It is reported to be either pro-inflammatory due to promoting inflammatory cytokine secretion, or to prevent autoimmune arthritis by inhibiting matrix metalloproteinase (MMP) and prostaglandin expression (6-9). In muscle and heart, it appears to be protective and promotes endothelial cell functions such as revascularization after ischemia, probably due to promoting expression and activation of the protein kinase AKT1 (10, 11). Cardiac and circulating FSTL1 is generally increased in conditions such as heart failure and acute coronary syndrome (11, 12). FSTL1 also appears to be a tumor suppressor, showing down-regulated expression in many human cancers (4, 14, 15). *In vitro*, it slows proliferation and MMP-dependent migration, and increases FAS-dependent apoptosis of tumor cell lines (14).

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.