Human Follistatin-like 1/FSTL1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1694

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Follistatin-like 1/FSTL1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse FSTL1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Follistatin-like 1/FSTL1 Met1-Ile308 Accession # Q12841
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

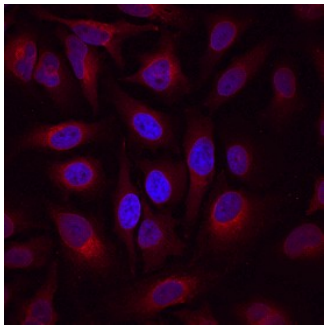
APPLICATIONS

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-like 1/FSTL1
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human placenta

DATA

Immunocytochemistry



Follistatin-like 1/FSTL1 in HeLa Human Cell Line. Follistatin-like 1/FSTL1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human Follistatin-like 1/FSTL1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1694) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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.
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.

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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).

References:

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