

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GASP-2/WFIKKN in ELISAs. In sandwich immunoassays, no cross-reactivity with recombinant human GASP-1 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 289827
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human GASP-2/WFIKKN Ala20-Asp548 Accession # Q96NZ8
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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 Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	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

Growth and differentiation factor-associated serum protein-2 (GASP-2) cDNA encodes a 548 amino acid protein that contains a 19 amino acid signal sequence and is comprised of many conserved domains: WAP, follistatin/Kazal, immunoglobulin, two tandem Kunitz, and netrin (1). Based on the order of these conserved domains, GASP-2 is also known as WFIKKN (1). Another related protein which contains the same domain structure is called WFIKKNRP (WFIKKN-related protein), or GASP-1 (2, 3). WAP, follistatin, Kunitz and netrin domains are all implicated in protease inhibition, and the GASP proteins may be multivalent protease inhibitors (1, 4). Tests at R&D Systems have measured the ability of GASP-2 to inhibit trypsin cleavage of the fluorogenic peptide substrate Mca-RPKPVE-Nval-WRK(Dnp)-NH₂ (R&D Systems Catalog # ES002). The IC₅₀ value was approximately 10 nM, as measured in a reaction mixture containing 1.0 nM trypsin, 10 µM ES002, 50 mM Tris, 10 mM CaCl₂, 0.15 M NaCl, pH 7.5.

GASP-1 and -2 show distinct expression patterns both in the developing fetus and the adult. In the developing fetus, GASP-2 is abundant in the lung, skeletal muscle and liver while GASP-1 expression is highest in the brain, skeletal muscle, thymus and kidney (3). In the adult, GASP-2 is expressed primarily in the pancreas, liver, and thymus while GASP-1 is in the ovary, testis, and brain (3). Further characterization shows that GASP-1 inhibits myostatin (GDF-8) and the highly related protein, GDF-11, but not Activin or TGF-β *in vitro* (2). Although, this kind of activity has not been reported for GASP-2, tests at R&D Systems have determined that GASP-2 shows similar inhibitory activity towards myostatin as GASP-1. By amino acid sequence, human GASP-2 is 55% identical to human GASP-1.

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.