

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TSG in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf21-derived recombinant mouse TSG Cys25-Phe222 Accession # Q9EP52
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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.
Immunohistochemistry	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

Twisted Gastrulation (TSG) is a secreted, cysteine-rich protein that plays a role in dorsal/ventral patterning by regulating BMP signaling in *Drosophila* and *Xenopus*. TSG was originally identified in *Drosophila melanogaster* and shown to be required for the differentiation of the dorsal amnioserosa cells. Vertebrate TSGs were subsequently cloned in mouse, human, zebrafish and frog. Mouse TSG encodes a 222 amino acid (aa) residue precursor protein with a 24 aa residue putative signal peptide that is cleaved to generate the 198 aa residue mature protein. Studies of expression and function of Twisted Gastrulation have been performed in *Drosophila* and *Xenopus*. *Xenopus* TSG is expressed in the ventral regions of the embryo during gastrulation, mimicking the BMP-4 expression pattern. dTSG is expressed in dorsal cells of the blastoderm embryo, where there are also high levels of activity of Dpp and Screw. *In vivo*, TSG acts as an agonist for BMP signaling by modulating the inhibitory actions of the BMP antagonist, Chordin/Sog and the cleavage properties of the metalloprotease, xolloid/tolloid. The N-terminal domain of TSG can bind BMP protein directly *in vitro* and shows BMP antagonist activity.

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.