
Product Data Sheet

Product Name: TSG Human
 Cat. No.: GP21017
 Batch No.: 1

Product Data

Purity	>98%	Source	CHO.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Twisted Gastrulation BMP Signaling Modulator 1; TSG; Twisted Gastrulation Homolog 1 (Drosophila); Twisted Gastrulation Protein Homolog 1; Twisted Gastrulation Homolog 1; TWSG1.		
Amino Acid Sequence	CNKALCASDV SKCLIQELCQ CRPGEGNCSC CKECMLCLGA LWDECCDCVG MCNPRNYSMT PPTSKSTVEE LHEPIPSLFR ALTEGDTQLN WNIVSFPVAE ELSHHENLVS FLETVNQPHH QNVSVPNNV HAPYSSDKEH MCTVVYFDDC MSIHQCKISC ESMGASKYRW FHNACCECIG PECIDYGSKT VKCMN CMF.		
Solubility	It is recommended to reconstitute the lyophilized TSG in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a 0.2µm filtered solution in PBS.		

Introduction

Twisted gastrulation Protein (TSG) is a secreted, cysteine-rich protein which has a role in dorsal/ventral patterning in *Drosophila* and *Xenopus* by regulating BMP signaling. TSG functions as an agonist for BMP signaling by controlling the inhibitory actions of the BMP antagonist, Chordin/Sog, and the cleavage properties of the metalloprotease, xolloid/tolloid. TSG N-terminal domain binds BMP protein directly and displays BMP antagonist activity.

Biological Activity

The ED₅₀, as measured by its ability to inhibit alkaline phosphatase production induced by rHuBMP-6 in mouse ATDC5 cells, is less than 16µg/ml.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Lyophilized TSG although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution TSG should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

TWSG1 Human Recombinant (26-223) produced in CHO is a single, glycosylated, polypeptide chain containing 198 amino acids and having a molecular mass ranging from 35-43kDa on SDS-PAGE due to glycosylation. The TWSG1 is purified by proprietary chromatographic techniques.

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