

TSG, human recombinant

CATALOG #:	7207-10	10 µg
	7207-50	50 µg
ALTERNATE NAMES:	Twisted Gastrulation Protein	
SOURCE:	E coli	
PURITY:	≥ 95% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	22.2 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1 EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Acetate, pH 6.0.	
STORAGE CONDITIONS:	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

RECONSTITUTION:

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

DESCRIPTION:

Twisted Gastrulation Protein (TSG) is a secreted BMP binding protein structurally related to the BMP antagonists Chordin and Noggin. TSG can inhibit BMP activity by binding directly to BMP proteins, and can act either as a BMP4 agonist or antagonist (depending on the specific biochemical environment) by binding to the BMP4/Chordin complex. Recombinant human TSG is a 198 amino acid 22.2 kDa protein containing the BMP/TGFβ binding portion of the full length TSG protein.

AMINO ACID SEQUENCE:

CNKALCASDV SKCLIQELCQ CRPGEGNCSC KKECMLCLGA LWDECCDCVG
 MCNPRNYSdT PPTSKSTVEE LHEPIPSLFR ALTEGDTQLN WNIVSFPVAE
 ELSHHENLVS FLETVNQPHH QNVSVPSNNV HAPYSSDKEH MCTVVYFDDC
 MSHQCKISC ESMGASKYRW FHNACCECIG PECIDYGSKT VKCMNCMF

BIOLOGICAL ACTIVITY:

Determined by its ability to neutralize BMP-6 induced alkaline phosphatase production by ATDC chondrogenic cells. The expected ED₅₀ for this effect is ≤ 2.0 µg/ml of TSG.

RELATED PRODUCTS:

- Noggin, human recombinant (Cat # 4675-20, -100, -1000)
- Noggin Antibody (Cat # 5775-100)
- Human Cell^{exp} Human Recombinant BMP-2 (Cat # 6444-10, -50)
- Human Cell^{exp} Human Recombinant BMP-4 (Cat # 6445-10, -50)
- Human Cell^{exp} Human Recombinant BMP-7 (Cat # 6446-10, -50)
- BMP-10, human recombinant (Cat # 4581-20, -100, -1000)
- BMP-11, human recombinant (Cat # 4576-10, -50, -1000)
- BMP-12, human recombinant (Cat # 4572-20, -100, -1000)
- BMP-13, human recombinant (Cat # 4639-10, -50, -1000)
- BMP-14, human recombinant (Cat # 4580-10, -50, -1000)
- BMP-2, human recombinant (Cat # 4577-10, -50, -1000)
- BMP-3, human recombinant (Cat # 4573-10, -50, -1000)
- BMP-4, human recombinant (Cat # 4578-10, -50, -1000)
- BMP-5, human recombinant (Cat # 4574-10, -50, -1000)
- BMP-6, human recombinant (Cat # 4911-10, -50, -1000)
- BMP-7, human recombinant (Cat # 4579-10, -50, -1000)
- BMPR1A, human recombinant (Cat # 4881-10, -1000)

FOR RESEARCH USE ONLY! Not to be used in humans.