

Active GMP Recombinant Mouse Tgfb1 Protein, His-Tagged

Cat. No. Tgfb1-01M Lot. No. (See product label)

SPECIFICATION

Product Overview	GMP Recombinant Mouse Tgfb1 Protein, His-Tagged was expressed in Escherichia coli cell-derived in an animal component free process under cGMP guidelines.
Species	Mouse
Source	E.coli
Description	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate a latency-associated peptide (LAP) and a mature peptide, and is found in either a latent form composed of a mature peptide homodimer, a LAP homodimer, and a latent TGF-beta binding protein, or in an active form consisting solely of the mature peptide homodimer. The mature peptide may also form heterodimers with other TGF-beta family members. This encoded protein regulates cell proliferation, differentiation and growth, and can modulate expression and activation of other growth factors including interferon gamma and tumor necrosis factor alpha. Mice lacking a functional copy of this gene develop severe multifocal inflammatory disease, yolk sac defects and colon cancer.
Form	Lyophilized
Bio-activity	Measure by its ability to inhibit the IL-4 dependent proliferation in HT-2 cells. The

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	ED50 for this effect is <0.1 ng/mL.
AA Sequence	MALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLD TQYSKVLALYNQHNPASASPCCVPQALEPLPIVYYVGRKPKVEQLSNMIVRSCKCS with polyhistidine tag at the C-terminus
Endotoxin	<0.1 EU per 1 µg of the protein by the LAL method.
Purity	>98% as determined by SDS-PAGE analysis. Purified by Ni-NTA chromatography
Notes	Please use within one month after protein reconstitution.
Storage	Lyophilized protein should be stored at -20°C. Upon reconstitution, protein aliquots should be stored at -20°C or -80°C.
Storage Buffer	The protein was lyophilized from a solution containing 20 mM sodium citrate, 0.2 M NaCl, pH 3.5.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H ₂ O to a concentration not less than 100 µg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved. In some experiments, it recommends to add 10 mM HCl when reconstitute lyophilized protein.

GENE INFORMATION

Gene Name	Tgfb1 transforming growth factor, beta 1 [Mus musculus (house mouse)]
Official Symbol	Tgfb1
Synonyms	Tgfb; Tgfb-1; TGFbeta1; TGF-beta1

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Gene ID	21803
mRNA Refseq	NM_011577.2
Protein Refseq	NP_035707.1
UniProt ID	P04202
	