

PRODUCT INFORMATION

## Croyez GMP® TGF beta 1 (Transforming growth factor beta 1), Human

v. 240101

Catalog number	C01088-GMP-100 / C01088-GMP-1000
Package	100 μg / 1 mg
Description	Transforming growth factor beta 1 (TGF beta 1) is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation, and apoptosis. In humans, TGF-β1 is encoded by the TGFB1 gene.
Expression System	Escherichia coli
Species of Origin	Human
Affinity Tag	His Tag (C-term)
Sequence	Ala279-Ser390
Endotoxin level	<0.05 EU per 1 µg of the protein by the LAL method.
Activity	Measure by its ability to inhibit the IL-4 dependent proliferation in TF-1 cells. The ED $_{50}$ for this effect is <0.1 ng/mL. The specific activity of recombinant human TGF beta 1 is approximately >1 x $10^7$ IU/mg, which is calibrated against the human TGF beta 1 WHO International Standard (NIBSC code: 89/514). Measure by its ability to induce proliferation in MCF-7 cells The ED $_{50}$ for this effect is <3.2 ng/mL.
Purity	>98% as determined by SDS-PAGE analysis.
Mycoplasma	Not detected
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 µm filtered solution of PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
Stability & Storage	This product is stable after storage at:  -20°C for 12 months in lyophilized state from date of receipt.  -20°C or -80°C for 1 month under sterile conditions after reconstitution.



	Avoid repeated freeze/thaw cycles.
Specification	Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:
	Escherichia coli
	<ul> <li>Animal-free reagent and laboratory</li> </ul>
	Testing and traceability of raw material
	<ul> <li>Records of the maintenance and equipment calibration</li> </ul>
	Personnel training records
	Batch-to-batch consistency
	<ul> <li>Documentation of QA control and process changes</li> </ul>
	<ul> <li>Manufactured and tested under an ISO 13485:2016 certified quality</li> </ul>
	management system
	Stability monitor of product shelf-life
Reference	1. Khalil N. (1999) Microbes Infect. 1,15: 1255-63.
	2. Kim KK. et al. (2018) Cold Spring Harb Perspect Biol. 10,4: a022293.
	3. Wang XJ. et al. (2006) J Investig Dermatol Symp Proc. 11,1: 112-7.
	kDa
	75-
	60-
	45-
	35-
	25-
	15
	15-
	10-
	SDS-PAGE analysis of Croyez GMP® TGF beta 1, Human

For Research Use Only. Not for use in diagnostic or therapeutic procedures.