Recombinant Mouse/Rat TGF-beta 1

Catalog No.: RP0014

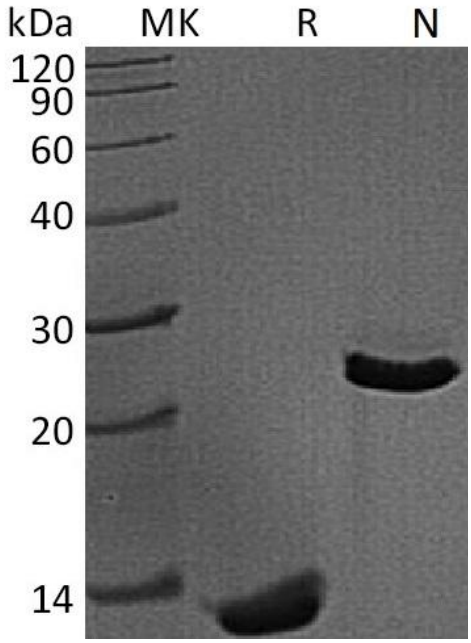
Basic Information

Information	
Source	*Human Cells*
Description	Recombinant Mouse/Rat Transforming Growth Factor Beta 1 is produced by our Mammalian expression system and the target gene encoding Ala279-Ser390 is expressed.
Accession	P04202
Known As	TGF-beta-1; TGFB; TGF-b1; TGFB1; CEDLAP;latency-associated peptide; TGFbeta; TGF-beta 1 protein; transforming growth factor beta-1
Predicted Mol Mass	12.8 KDa
Apparent Mol Mass	13 KDa, reducing conditions

Properties	
Formulation	Lyophilized from a 0.2 μm filtered solution of 4mM HCl.
Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Endotoxin	< 0.01 EU/μg as determined by LAL test.
Reconstitution	Always centrifuge tubes before opening.Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100μg/ml. Dissolve the lyophilized protein in 4mM HCl. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

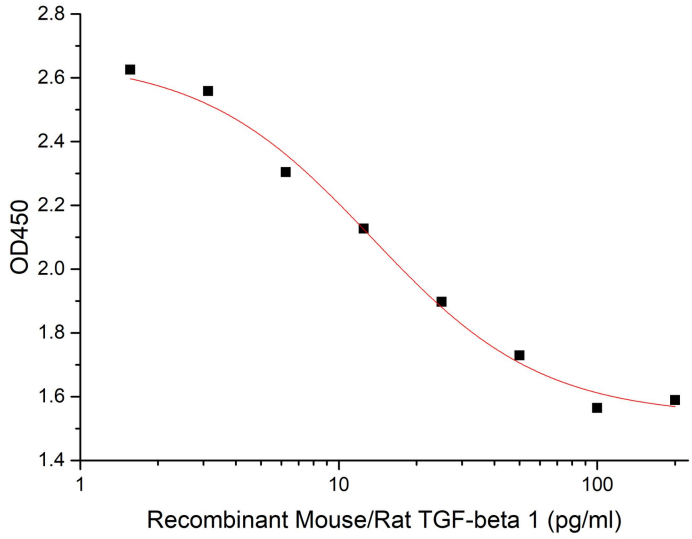
Experimental Data

Purity-SDS-PAGE



Greater than 95% as determined by reducing SDS-PAGE. (QC verified)

Bioactivity-Cell Based Assay



Measured by its ability to inhibit IL-4-dependent proliferation of TF-1 human erythroleukemic cells.The ED50 for this effect is 5-25 pg/ml. (QC verified)

Background

Transforming growth factor beta 1 (TGFβ1) is the prototype of a growing superfamily of peptide growth factors and plays a prominent role in a variety of cellular processes, including cell-cycle progression, cell differentiation, reproductive function, development, motility, adhesion, neuronal growth, bone morphogenesis, wound healing, and immune surveillance. TGF-β1, TGF-β2 and TGF-β3 signal via the same heteromeric receptor complex, consisting of a ligand binding TGF-β receptor type II (TβR-II), and a TGF-β receptor type I (TβR-I). Signal transduction from the receptor to the nucleus is mediated via SMADs. TGF-β expression is found in cartilage, bone, teeth, muscle, heart, blood vessels, haematopoitic cells, lung, kidney, gut, liver, eye, ear, skin, and the nervous system.