

## TGF- $\beta$ 1, Mouse

**Cat. No.:** Z03431-1

**Size:** 1.0 mg

**Synonyms:** TGF-beta-1; CED; DPD1; TGFB; TGF-b1; TGFB1; CEDLAP; latency-associated peptide; TGFbeta; TGF-beta 1 protein; transforming growth factor beta-1

### Description:

Transforming growth factor beta 1 (TGF $\beta$ 1) 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- $\beta$ 1, TGF- $\beta$ 2 and TGF- $\beta$ 3 signal via the same heteromeric receptor complex, consisting of a ligand binding TGF- $\beta$  receptor type II (T $\beta$ R-II), and a TGF- $\beta$  receptor type I (T $\beta$ R-I). Signal transduction from the receptor to the nucleus is mediated via SMADs. TGF- $\beta$  expression is found in cartilage, bone, teeth, muscle, heart, blood vessels, hematopoietic cells, lung, kidney, gut, liver, eye, ear, skin, and the nervous system.

Recombinant Mouse TGF- $\beta$ 1 produced by a mammalian expression system is a polypeptide chain containing 112 amino acids. A fully biologically active molecule; rm TGF- $\beta$ 1 a molecular mass of 12.8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Amino Acid Sequence:

Ala<sup>279</sup>-Ser<sup>390</sup> (Accession #:P04202);

00001 ALDTNYCFSS TEKNCCVRQL YIDFRKDLGW KWIHEPKGYH

00041 ANFCLGPCPY IWSLDTQYSK VLALYNQHNP GASASPCCV

00081 QALEPLPIVY YVGRKPKVEQ LSNMIVRSCK CS

### Source: *Human Cells*

**Biological Activity:** ED50 <0.2 ng/ml, measured in a cell proliferation assay using mouse HT-2 cells.

**Molecular Weight:** 12.8 kDa; observed by reducing SDS-PAGE.

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution in of 4 mM HCl.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/ml.

**Purity:** > 95% as analyzed by SDS-PAGE.

**Endotoxin Level:** < 1 EU/ $\mu$ g; determined by LAL method.

**Storage:** Lyophilized recombinant TGF- $\beta$ 1, Mouse remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Mouse TGF- $\beta$ 1 should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.