

Overview

Synonyms	Transforming growth factor beta-3, TGFB3, TGF-beta-3, Latency-associated peptide, LAP
Description	<p>Transforming growth factor beta 3 (TGFB3) is a member of a TGF-β superfamily which is defined by their structural and functional similarities. TGFB3 is secreted as a complex with LAP. This latent form of TGFB3 becomes active upon cleavage by plasmin, matrix metalloproteases, thrombospondin -1, and a subset of integrins. It binds with high affinity to TGF-β RII, a type II serine/threonine kinase receptor. TGFB3 is involved in cell differentiation, embryogenesis and development. It is believed to regulate molecules involved in cellular adhesion and extracellular matrix (ECM) formation during the process of palate development. Without TGF-β 3, mammals develop a deformity known as a cleft palate.</p> <p>Recombinant human TGF-β 3 produced by a mammalian expression system is a polypeptide chain containing 112 amino acids. A fully biologically active molecule; rh TGF-β 3 a molecular mass of 12.7 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.</p>
Source	Human Cells
Biological Activity	ED50 <0.2 ng/ml, measured in a cell proliferation assay using mouse HT-2 cells.
Sequence	<p>Ala³⁰¹-Ser⁴¹² (Accession #: P10600); ALDTNYCFRNLEENCCVRPLYIDFRQDLGKWWH EPKGYFANFCSGPCPYLRADTTHSTVTLGLYNTL NPEASASPCCVPQDLEPLTILYVGRTPKVEQLS NMVVKSCCKCS</p>

Properties

Measured Molecular Weight	12.7 kDa; observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE.
Formulation	Lyophilized from a 0.2 μ m filtered solution in 4mM HCl.
Reconstitution	Reconstituted in ddH ₂ O at 100 μ g/ml.
Endotoxin Level	< 1 EU/ μ g; determined by LAL method.
Storage	Lyophilized recombinant TGF- β 3, human remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution; Human TGF- β 3 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.

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