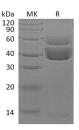
# Recombinant Human TGFB1/TGF-beta 1 Protein (His Tag)

### Catalog No. PKSH033495

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Synonyms	Transforming Growth Factor Beta-1;TGF-Beta-1;Latency-Associated Peptide;LAP;TGFB1;TGFB;CED;DPD1;TGF-beta 1
Species	Human
Expression Host	HEK293 Cells
Sequence	Leu30-Ser390(Cys33Ser)
Accession	P01137
Calculated Molecular Weight	29.3&12.8 kDa
Observed molecular weight	38-55&13 kDa
Tag	N-His
Bioactivity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.



>95 % as determined by reducing SDS-PAGE.

## Background

Transforming Growth Factor  $\beta$ -1 (TGF $\beta$ -1) is a secreted protein which belongs to the TGF- $\beta$  family. TGF $\beta$ -1 is

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abundantly expressed in bone; articular cartilage and chondrocytes and is increased in osteoarthritis (OA). TGF $\beta$ -1 performs many cellular functions; including the control of cell growth; cell proliferation; cell differentiation and apoptosis. The precursor is cleaved into a latency-associated peptide (LAP) and a mature TGF $\beta$ -1 peptide. TGF $\beta$ -1 may also form heterodimers with other TGF $\beta$  family members. It has been found that TGF $\beta$ -1 is frequently upregulated in tumor cells. Mutations in this gene results in Camurati-Engelmann disease.

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