

# Recombinant Human/Mouse/Rat mature TGF-beta 3 Protein

Catalog No.: RP00645 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	7043	P10600

### Tags

No tag

### Synonyms

TGFB3;ARVD;ARVD1;LDS5;RNHF;TGF-beta3

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
12.70 kDa	13-16 kDa

### Endotoxin

< 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.2 μm filtered solution of 50mM Glycine-HCl, 150mM NaCl, pH 2.5. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the tube before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

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-β3, mammals develop a deformity known as a cleft palate.

## Basic Information

### Description

Recombinant Human/Mouse/Rat TGF-beta 3 Protein is produced by Human cells expression system. The target protein is expressed with sequence (Ala301-Ser412(Tyr340Phe)) of human TGF-beta 3/TGFB3 (Accession #P10600).

### Bio-Activity

Measured by its ability to inhibit the IL-4-dependent proliferation of HT-2 mouse T cells. The ED<sub>50</sub> for this effect is 24.2-96.6 pg/mL, corresponding to a specific activity of 1.04×10<sup>7</sup>~4.17×10<sup>7</sup> units/mg.

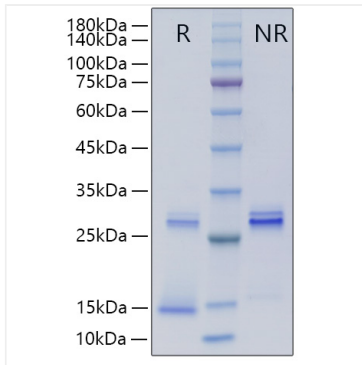
### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

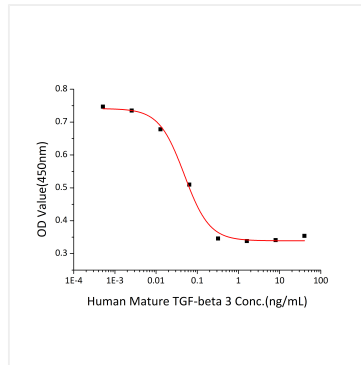
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

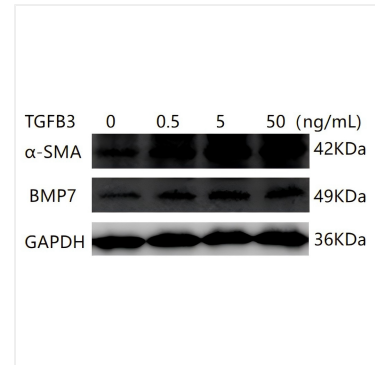
## Validation Data



Recombinant Human/Mouse/Rat TGF-beta 3 Protein was determined by SDS-PAGE under reducing (R) and non-reducing (NR) conditions, showing bands at 13-16 kDa and 25-30 kDa, respectively.



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Recombinant Human/Mouse/Rat mature TGF-beta 3 Protein enhances  $\alpha$ -SMA and BMP7 expression in NRK-49F rat kidney cells. 0.5-5ng/mL of Recombinant Human/Mouse/Rat mature TGF-beta 3 can effectively enhance  $\alpha$ -SMA and BMP7 expression.