

Product Data Sheet

Recombinant Human Transforming Growth Factor Beta 3 (rh TGF- β 3)

Product Code: BB0001

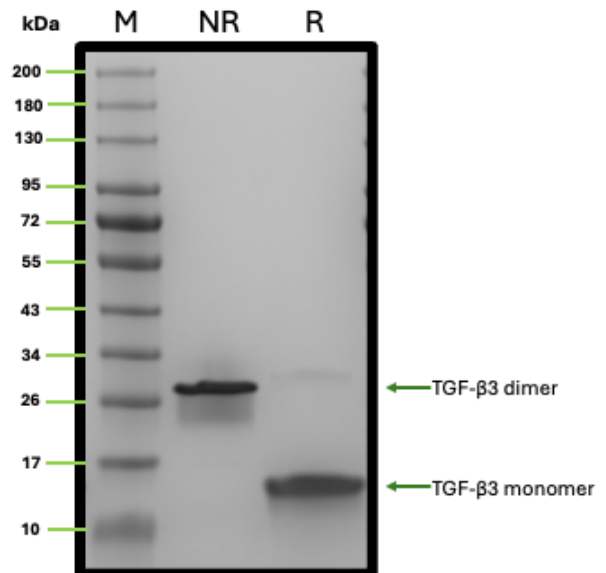
Description

Nature/Type:	Recombinant Protein
Host:	<i>Nicotiana tabacum</i>
Protein Accession:	P10600
Species:	<i>Homo sapiens</i>
Protein length:	112 amino acids
Amino Acid sequence:	MALDTNYCFRNLEENCCVRPLYIDF RQDLGWKWWHEPKGYANFCSGP CPYLRSA DTTHSTVLGLYNTLNPE ASASPCCVPQDLEPLTILYYVGRTP KVEQLSNMVKCKCS

Specifications:

Structure/Form	Disulfide-linked homodimer
Post-translational modifications	Non-glycosylated
Molecular weight	25,425.2 Da
Amount	10 μ g, 50 μ g, 100 μ g, 500 μ g or 1mg
Purity	>95% by SDS-PAGE
Endotoxin level	<0.0025 EU/ μ g
Format	Lyophilised in 20% EtOH, 0.12% Acetic acid pH4.0.
Activity	EC50: ~24.6 pg/mL. No significant difference between EC50 of reference and test lots

Purity



TGF- β 3 migrates as a single band at ~26 kDa in non-reducing (NR) conditions and at ~13 kDa upon reduction (R), with no contaminating protein bands visible. Purified recombinant protein (3 μ g) was resolved using 12-20% w/v SDS-PAGE under reducing (TCEP, R) and non-reducing (NR) conditions, then stained with commercial Coomassie.

Preparation instructions:

1. Centrifuge briefly to collect all material at the bottom of the tube.
2. Reconstitute the lyophilised protein using 10mM HCl (or a compatible buffer as listed on below), to a concentration of 0.5 µg/µL for the concentrated stock solution.
3. Allow the pellet to hydrate for 5 minutes at room temperature.

Note: For some buffers complete solubilisation will require up to 8 hours at room temperature (20°C–25°C).

4. Pipette gently until the sample is visibly solubilised.
5. Prepare single-use aliquots of the stock solution to avoid multiple freeze–thaw cycles and store the aliquots at –80°C. For concentrations below 0.05 µg/µL, add a carrier protein (e.g., 0.1% BSA) if compatible with your application.

Note: Avoid filter sterilisation unless validated, as it may cause protein loss.

Recommended buffers:

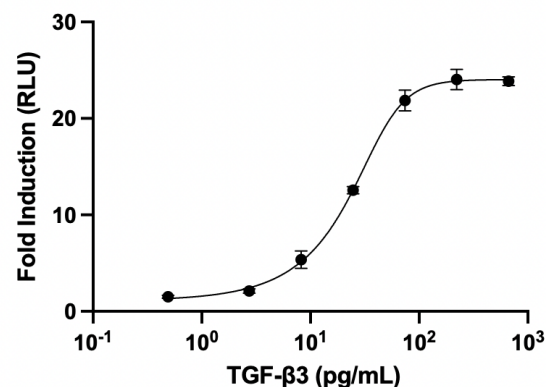
- 1) 10mM HCl
- 2) 4mM HCl
- 3) 0.12% v/v acetic acid, 20% v/v ethanol, pH4.0

*For protein >500ug, at 0.5ug/uL use 10mM HCl for quick reconstitution.

Stability & Storage

- 12 months from date of receipt, –20 to –80 °C as supplied
- 6 months from date of receipt, 2–8 °C as supplied
- 3 months, –20 to –80 °C under sterile conditions after reconstitution in a recommended buffer.

Bioactivity



Luciferase activation by chloroplast expressed TGF-β3. TGF-β responsive SBE Reporter HEK293 cells were incubated with increasing concentrations of TGF-β3 for 6 hours. Luciferase activity was measured using the Pierce™ Firefly Luc One-Step Glow Assay Kit. The results are shown as fold induction of SBE luciferase reporter expression in relation to the activity of cells. EC₅₀ for bioactivity of TGF-β3 recorded at 24.6 pg/mL.

This product is for Research only

End of Product Data Sheet