

# Cytokines

## Human Recombinant TGF-beta 3



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### Transforming growth factor beta 3

Catalog # 78131	10 µg	0.25 mg/mL
78131.1	100 µg	0.25 mg/mL
78131.2	1000 µg	0.25 mg/mL

## Product Description

Transforming growth factor (TGF) beta 3 is a member of the TGF-β superfamily and regulates diverse cellular phenotypes. TGF-beta 3 binds to serine-threonine kinase type I and II receptors and activates signal transduction through SMAD2/3 proteins, thus regulating a variety of functions, including cell proliferation, differentiation, wound healing, apoptosis, and metabolism (Massagué; McDowell et al.). TGF-beta 3 enhances glycosaminoglycan production by mesenchymal stromal cells, stimulates scar-free healing, and improves glucose tolerance and phenotypic changes in adipocyte morphology (Hall et al.; Holton et al.). TGF-beta 3 induces proliferation of posterofrontal suture-derived mesenchymal stromal cells, and stimulates expression of fibroblast growth factors 2 and 18 (James et al.).

## Product Information

Alternative Names:	ARVD, FLJ16571, TGFB3, TGF-b3, Transforming growth factor beta-3
Accession Number:	P10600
Amino Acid Sequence:	MALDTNYCFR NLEENCCVRP LYIDFRQDLG WKWVHEPKGY YANFCSGPCP YLRSADTTHS TVLGLYNTLN PEASASPCCV PQDLEPLTIL YYVGRTPKVE QLSNMVVKSC KCS
Predicted Molecular Mass:	12.9 kDa monomer; 25.7 kDa dimer
Species:	Human
Cross Reactivity:	Mouse, Rat, Pig, Cow, Dog
Formulation:	Sterile-filtered liquid containing 10 mM acetic acid and 20% ethanol
Source:	E. coli

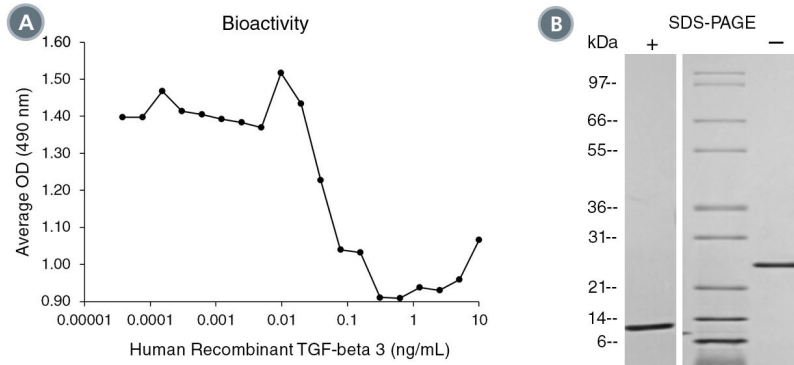
## Specifications

Activity:	The specific activity is $\geq 1.0 \times 10^6$ units/mg ( $EC_{50} \leq 1$ ng/mL) as determined by the ability to inhibit IL-4-induced HT-2 cell proliferation.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is $\leq 1$ EU/µg protein.

## Preparation and Storage

Storage:	Store at 2 - 8°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Do not vortex. Store at 2 - 8°C for up to 12 months from date of receipt. Do not freeze.

## Data



(A) The biological activity of Human Recombinant TGF-beta 3 was tested by its ability to inhibit proliferation of HT-2 cells in the presence of IL-4. Inhibition of cell proliferation was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which cell proliferation inhibition is at 50% of maximum. The EC50 in the example above is 0.0445 ng/mL.

(B) 1  $\mu$ g of Human Recombinant TGF-beta 3 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining.

## Related Products

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## References

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