

#8425 Store at -20C

Human Transforming Growth Factor β 3 (hTGF- β 3)



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MW (kDa):
12

UniProt ID:
#P10600

Entrez-Gene Id:
7043

Background

TGF- β 3 can induce cell proliferation and angiogenesis, and can promote some immune events while inhibiting others (1-3). TGF- β 3 is produced by chondrocytes, glial cells, astrocytes and some cancer cells (3,4). TGF- β 3 binds to T β RII homodimer, which then complexes with T β RI homodimer (1,5). The oligomeric receptor complex phosphorylates subsets of SMAD proteins that then act to induce or suppress target genes (1,5). Based on knock-out studies in mice, TGF- β 3 is critical for lung and palate development (6).

Endotoxin

Less than 0.01 ng endotoxin/1 μ g hTGF- β 3.

Purity

>98% as determined by SDS-PAGE of 6 μ g reduced (+) and non-reduced (-) recombinant hTGF- β 3. Less than 5% migrates as monomer hTGF- β 3 under non-reduced (-) conditions. All lots are greater than 98% pure.

Source / Purification

Recombinant human TGF- β 3 (hTGF- β 3) Ala301-Ser412 (Accession #NP_003230) was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant hTGF- β 3 was determined by assessing inhibition of IL-4 induced HT-2 cell proliferation. The ED₅₀ of each lot is between 0.02-0.1 ng/ml.

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Background References

1. Siegel, P.M. and Massagué, J. (2003) *Nat Rev Cancer* 3, 807-21.
2. Bieri, B. and Moses, H.L. (2006) *Nat Rev Cancer* 6, 506-20.
3. Damstrup, L. et al. (1993) *Br J Cancer* 67, 1015-21.
4. Constam, D.B. et al. (1992) *J Immunol* 148, 1404-10.
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6. Dünker, N. and Kriegelstein, K. (2000) *Eur J Biochem* 267, 6982-8.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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