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Product Information

TRANSFORMING GROWTH FACTOR- β 2 (TGF- β 2)

Human, Recombinant

Expressed in NSO murine myeloma cells

Product Number **T2815**

Product Description

Transforming Growth Factor- β 2 (TGF- β 2), a multifunctional peptide of 25 kDa, is capable of influencing cell proliferation, differentiation and other functions in a wide range of cell types. The nature of its action on a particular target cell is critically dependent on many parameters including cell type and state of differentiation, the growth conditions, and the other growth factors present.¹ TGF- β 2 stimulates mesenchymal cells to differentiate. However, treatment of chondrocytes with TGF- β 2 leads to suppression of cartilage markers.¹ TGF- β 2 is a potent immunoregulatory agent, enhancing monocyte function and suppressing lymphocyte proliferation and function.¹ Proliferation of osteoblasts are regulated by TGF- β 2. In contrast, TGF- β 2 inhibits proliferation of a variety of cells, including fibroblasts, epithelial cells, keratinocytes and endothelial cells.² TGF- β 2 is a potent growth inhibitor of Interleukin-1 (IL-1) and phytohemagglutin (PHA)-stimulated thymocytes.³ TGF- β 2 is active in muscle induction.⁴ TGF- β 1 and TGF- β 2 share 63% amino terminal sequence identity.³

Reagents

Lyophilized from a 0.2 μ m-filtered solution of 30% acetonitrile/0.1% trifluoroacetic acid containing 100 μ g of bovine serum albumin as a carrier protein.

Storage/Stability

Store at -20 °C.

After reconstitution, store at 2-8 °C for a maximum of one month. For extended storage, freeze in working aliquots at -20 °C or -70 °C. Repeated freezing and thawing is not recommended.

Product Profile

The biological activity of recombinant human TGF- β 2 is measured by its ability to inhibit the mouse IL-4 dependent growth of mouse HT-2 cells. The EC₅₀ is defined as the effective concentration of growth factor that elicits 50% inhibition of cell growth in a cell-based bioassay.

Reconstitution

Reconstitute with sterile 4 mM HCl containing at least 0.1% HSA or BSA to a stock concentration no less than 1 μ g/ml.

References

1. Roberts, A., and Sporn, M, eds., Peptide Growth Factors and Their Receptors I, Springer Verlag, 419 (1990).
2. Ogawa, Y., et al., Methods Enzymol., **198**, 317 (1991).
3. Ellingsworth, L. R., et al., Cell Immuno., **114**, 41 (1988).
4. Rosa, F., et al., Science, **239**, 783 (1988).

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