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Product Information

Latency Associated Peptide (TGF- β 1) (LAP)

Human, Recombinant

Expressed in Sf 21 insect cells

Product Number **L 3408**

Product Description

TGF- β is released from degranulating platelets and secreted from nearly all cells in a biologically inactive complex which is unable to bind to cellular receptors and is not recognized by antibodies to TGF- β .¹ The peptide can be activated by acidification, alkalinization, or action of chaotropic agents *in vitro*.² The complex consists of TGF- β associated non-covalently with a protein designated as the latency associated peptide (LAP). TGF- β and LAP represent components of a pro-peptide that is cleaved in a post-golgi compartment prior to secretion. The recombinant human LAP is produced from a DNA sequence corresponding to the 278 amino acid residues of pre-pro-TGF- β 1 terminating prior to the mature TGF- β 1. LAP contains a Cys33 to Ser33 substitution.³ LAP contains 249 amino acids, generated after cleavage of a 29 amino acid residue signal peptide. LAP is a glycosylated, disulfide linked homodimer.

Reagents

Lyophilized from a 0.2 μ m-filtered solution of phosphate buffered saline, pH 7.4 containing 1.25 mg bovine serum albumin (BSA) as a carrier protein.

Reconstitution

Reconstitute the contents of the vial using 0.2 μ m-filtered PBS containing 0.1% HSA or BSA to a concentration not less than 10 μ g/ml.

Storage/Stability

Store at 20 °C for no more than 6 months.

For extended storage, freeze in working aliquots at -70 °C or 20 °C for a maximum of three months. Repeated freezing and thawing is not recommended.

Product Profile

The biological activity of recombinant, human LAP is measured by its ability to inhibit TGF- β 1 activity on the mouse T cell line, HT-2.⁴ The EC₅₀ is defined as the effective concentration of growth factor that elicits a 50% inhibition of cell growth in a cell based bioassay

References

1. Pircher, R., et al., Biochem. Biophys. Res. Commun., **136**, 30 (1986).
2. Lawrence, D. A., et al., Biochem. Biophys. Res. Commun., **133**, 1026 (1985).
3. Derynck, R., et al., Nature, **316**, 701 (1985).
4. Tsang, M., et al., Lymphokine Res., **9**, 907 (1990).

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