



AITRL, human recombinant

Catalog No: 97400
Lot No: XXXXX
Source: *E. coli*
Synonyms: Osteostat, TNFSF18, Activation-induced TNFR member Ligand, GITRL, TL6, AITRL, Glucocorticoid-induced TNF-related ligand, hGITRL, Tumor necrosis factor ligand superfamily member 18, MGC138237

Background

Osteostat is the cytokine that binds to TNFRSF18/AITR/GITR and is important for interactions between activated T-lymphocytes and endothelial cells and may modulate T-lymphocyte survival in peripheral tissues. Osteostat is expressed at high levels in the small intestine, ovary, testis, kidney and endothelial cells after stimulation by lipopolysaccharides. Osteostat protein is detectable in human microvascular EC and is highly up-regulated by IFN-alpha and IFN-beta. Osteostat inhibits differentiation of osteoclasts from monocytic precursor cells. Osteostat suppresses the early stage of osteoclastogenesis via inhibition of macrophage colony-stimulating factor-induced receptor activator of NF-kappaB (RANK) expression in the osteoclast precursor cells. Osteostat does not inhibit lipopolysaccharide-induced RANK expression in monocytes and dendritic cells, or activation-induced RANK expression in T cells. Osteostat is a novel regulator of osteoclast generation and substantiates the major role played by the endothelium in bone physiology.

Description

AITRL human recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 129 amino acids (72-199) and having a molecular mass of 14.6 kDa. AITRL is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

The AITRL solution (0.5 mg/ml) contains 10 mM sodium citrate (pH 3.5), 1 mM DTT and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90% as determined by SDS-PAGE.

Amino Acid Sequence

MQLETAKEPC MAKFGPLPSK WQMASSEPPC VNKVSDWKLE ILQNGLYLIY GQVAPNANYN DVAPFEVRLY KNKDMIQTLT
NKSQIQNVGG TYELHVGDTI DLIFNSEHQV LKNNTYWGII LLANPQFIS

Usage

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