Recombinant Human TNFSF18,His-tagged

Cat. No. TNFSF18-145H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AITRL His-Tagged Protein, produced in*E. coli*, is 15.7 kDa (calculated) protein containing 125 amino acid residues of the human AITRL and 14 additional amino acid residues - HisTag (underlined). The amino acid sequence of the recombinant human Osteostat is homologous to the extracellular domain of the human TNF18, Thr53-Ser177.
Species	Human
Source	E.coli
Description	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 inhibit differentiation of osteoclasts from monocytic precursor cells. Osteostat suppresses the early stage of osteoclastogenesis via inhibition of macrophage colony-stimulating factorinduced 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 substantiate the major role played by the endothelium in bone physiology.

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Amino acid sequence	MRGSHHHHHH GMASTAKEPC MAKFGPLPSK WQMASSEPPC VNKVSDWKLE ILQNGLYLIY GQVAPNANYNDVAPFEVRLY KNKDMIQTLT NKSKIQNVGG TYELHVGDTI DLIFNSEHQV LKNNTYWGII LLANPQFIS
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	Lyophilized from 0.5 mg/ml in 0.03M Acetate buffer, pH-4.
Solubility	Add 0.2 ml of 0.1 M Acetate buffer pH-4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 µg/ml. In higher concentrations the solubility of this antigen is limited.
Stability	Lyophilized AITRL although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution AITRL should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	TNFSF18 tumor necrosis factor (ligand) superfamily, member 18 [Homo sapiens]
Synonyms	Osteostat; TNFSF18; Tumor necrosis factor ligand superfamily member 18; GITRL; TL6; AITRL; hGITRL; MGC138237; AITR ligand; Activation-inducible TNF-related ligand; GITR ligand; Activation-induced TNFR member Ligand; Glucocorticoid-induced TNF-related ligand; Glucocorticoid-induced TNFR-related protein ligand
Gene ID	8995

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mRNA Refseq	NM-005092
Protein Refseq	NP-005083
MIM	603898
UniProt ID	Q9UNG2
Chromosome Location	1q23
Pathway	Cytokine-cytokine receptor interaction
Function	cytokine activity; tumor necrosis factor receptor binding

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