AITRL Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	AITRL, Recombinant Protein
Full Product Name	Recombinant Human AITRL, His Tag
Product Gene Name	AITRL recombinant protein
Product Synonym Names	AITRL Human, His; AITRL Human Recombinant, His Tag; Osteostat; TNFSF18; Activation-induced TNFR member Ligand; GITRL; TL6; AITRL; Glucocorticoid-induced TNF-related ligand; hGITRL; Tumor necrosis factor ligand superfamily member 18; MGC138237; AITRL His
Sequence	MQLETAKEPC MAKFGPLPSK WQMASSEPPC VNKVSDWKLE ILQNGLYLIY GQVAPNANYN DVAPFEVRLY KNKDMIQTLT NKSKIQNVGG TYELHVGDTI DLIFNSEHQV LKNNTYWGII LIANPQEISL EHHHHHH
Host	E Coli
Form/Format	Lyophilized from 0.5 mg/ml in 0.03M Acetate buffer, pH-4. Sterile Filtered White lyophilized (freeze-dried) powder.
Purity/Purification	Greater than 95.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Preparation and Storage	Lyophilized AITRL although stable at room temperature for 3 weeks, should be stored desiccated below -18 degree C. Upon reconstitution AITRL should be stored at 4 degree C between 2-7 days and for future use below -18 degree C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.
Molecular Weight	22,724 Da
OMIM	603898
3D Structure	ModBase 3D Structure for Q9UNG2
Solubility	Add 0.2 ml of 0.1M 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 ug/ml. In higher concentrations the solubility of this antigen is limited.
Product Categories/Family for AITRL recombinant protein	Cytokines and Growth Factors; Cytokines; AITRL
Related Product Information for AITRL recombinant protein	**Description:** The Human AITRL His-Tagged Recombinant 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. **Introduction:** 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.
Other Notes	Small volumes of AITRL recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for AITRL purchase	MBS142194 is a recombinant protein targeting AITRL. Also known as Recombinant Human AITRL, His Tag. Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AITRL. It may not necessarily be applicable to this product.

NCBI GI #	157419142
NCBI GeneID	8995
NCBI Accession #	NP_005083.2
UniProt Primary Accession #	Q9UNG2
UniProt Secondary Accession #	O95852; Q6ISV1; A9IQG8
UniProt Related Accession #	Q9UNG2
GenBank Nucleotide #	NM_005092.3
NCBI Official Full Name	tumor necrosis factor ligand superfamily member 18
NCBI Official Synonym Full Names	tumor necrosis factor (ligand) superfamily, member 18
NCBI Official Symbol	TNFSF18
NCBI Official Synonym Symbols	TL6; AITRL; GITRL; hGITRL
UniProt Protein Name	Tumor necrosis factor ligand superfamily member 18
UniProt Synonym Protein Names	Activation-inducible TNF-related ligand; AITRL; Glucocorticoid-induced TNF-related ligand; hGITRL
Protein Family	Tumor necrosis factor ligand superfamily
UniProt Gene Name	TNFSF18
UniProt Synonym Gene Names	AITRL; GITRL; TL6; AITRL; hGITRL
UniProt Entry Name	TNF18_HUMAN
NCBI Protein Information	tumor necrosis factor ligand superfamily member 18; AITR ligand; GITR ligand; activation-inducible TNF-related ligand; glucocorticoid-induced TNF-related ligand; glucocorticoid-induced TNFR-related protein ligand
NCBI Summary for AITRL	The protein encoded by this gene is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. This cytokine is a ligand for receptor TNFRSF18/AITR/GITR. It has been shown to modulate T lymphocyte survival in peripheral tissues. This cytokine is also found to be expressed in endothelial cells, and is thought to be important for interaction between T lymphocytes and endothelial cells. [provided by RefSeq, Jul 2008]
UniProt Comments for AITRL	TNFSF18: Cytokine that binds to TNFRSF18/AITR/GITR. Regulates T- cell responses. Can function as costimulator and lower the threshold for T-cell activation and T-cell proliferation. Important for interactions between activated T-lymphocytes and endothelial cells. Mediates activation of NF-kappa-B. Belongs to the tumor necrosis factor family. Protein type: Membrane protein, integral; Apoptosis; Cytokine Chromosomal Location of Human Ortholog: 1q23 Cellular Component: extracellular space; cell surface; plasma membrane; integral to membrane Molecular Function: cytokine activity; tumor necrosis factor receptor superfamily binding; tumor necrosis factor receptor binding; receptor binding Biological Process: tumor necrosis factor-mediated signaling pathway; cell-cell signaling; T cell proliferation during immune response; regulation of T cell proliferation; signal transduction; negative regulation of apoptosis; activation of NF-kappaB transcription factor
Research Articles on AITRL	**1.** Our findings indicate the possible involvement of GITR-GITRL pathway in the pathogenesis of pSS.

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