



PRODUCT DATA SHEET

Product: AITRL, (human recombinant)

Cat. No.: BP-025 (20 µg)

Synonyms:

Osteostat, TNFSF18, Activation-induced TNFR member Ligand, GITRL, TL6, Glucocorticoid-induced TNF-related ligand, hGITRL, Tumor necrosis factor ligand superfamily member 18, MGC138237.

Background:

AITRL 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. AITRL is expressed at high levels in the small intestine, ovary, testis, kidney and endothelial cells after stimulation by lipopolysaccharides. AITRL protein is detectable in human microvascular EC and is highly up-regulated by IFN-alpha and IFN-beta. AITRL inhibits differentiation of osteoclasts from monocytic precursor cells. AITRL 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. AITRL does not inhibit lipopolysaccharide-induced RANK expression in monocytes and dendritic cells, or activation-induced RANK expression in T cells. AITRL is a novel regulator of osteoclast generation and substantiate the major role played by the endothelium in bone physiology.

Description:

The human AITRL His-Tagged recombinant protein is produced in E. coli and contains 125 amino acid residues of the human AITRL and 14 additional amino acid residues - HisTag. The amino acid sequence of the recombinant human AITRL is homologous to the extracellular domain of the human TNF18, Thr53-Ser177.

Molecular Weight:

15.7 kDa

Amino Acid Sequence:

MRGSHHHHHH	GMASTAKEPC	MAKFGPLPSK
WQMASSEPPC	VNKVSDWKLE	ILQNGLYLIY
GQVAPNANYN	DVAPFEVRLY	KNKDMIQTLT
NKSKIQNVGG	TYELHVGDTI	DLIFNSEHQV
LKNNTYWGII	LLANPQFIS.	

Format:

White lyophilized powder from a 0.5 mg/mL solution in 0.03 M Acetate buffer, pH 4.

Storage:

Lyophilized human recombinant AITRL is stable for at least 3 weeks at room temperature. Long term storage should be below -18°C, desiccated. Upon reconstitution, human recombinant 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). Aliquot to avoid freeze/thaw cycles.

Reconstitution:

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.

Purity:

>95.0% determined by RP-HPLC, and SDS-PAGE.

Application:

■ Western blot

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.