Recombinant Human TNFRSF11A, Fc-His

Cat. No. TNFRSF11A-1678H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TNFRSF11A was expressed in*NSO cells*. The DNA sequence encoding the extracellular domain of human RANK was fused to the signal peptide of CD33 at the amino-terminus and to a 6X his-tagged Fc region of human IgG1 at the carboxy-terminus, via a polypeptide linker.
Species	Human
Source	Mammalian Cells
Description	RANK (Receptor Activator of Nuclear Factor κ B), also known as TRANCE Receptor is a type I membrane protein which is TNF receptor family member expressed on the surface of osteoclasts and is involved in the activation of osteoclasts upon ligand binding. It is also expressed on dendritic cells and facilitates immune signaling. RANK is highly expressed in mature osteoclasts. RANK is the intrinsic cell surface determinant that mediates osteoprotegerin ligand effects on bone resorption and remodeling as well as the physiological and pathological effects of calciotropic hormones and proresorptive cytokines.
Molecular Weight	The predicted molecular weight of Recombinant Human RANK is Mr 48 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 60 kDa.
State Of Matter	Lyophilized.
Purity	>95% by SDS Page and analyzed by silver stain.

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Formulation	This recombinant protein was 0.2 μm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.
Endotoxin	<1.0 EU/μg as determined by the LAL method.
Biological Activity	The biological activity of Human RANK was determined by its ability to inhibit TRANCE-induced osteoclast differentiation on mouse splenocytes. The expected ED50 for this effect is typically 0.1 - 0.25 μg/ml in the presence of 10 ng/ml of Recombinant Mouse TRANCE.
Storage And Stability	This lyophilized protein is stable for six to twelve months when stored desiccated at -20℃ to -70℃. After aseptic reconstitution, this protein may be stored at 2℃ to 8℃ for one month or at -20℃ to -70℃ in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name	TNFRSF11A tumor necrosis factor receptor superfamily, member 11a, NFKB activator [Homo sapiens]
Synonyms	TNFRSF11A; tumor necrosis factor receptor superfamily, member 11a, NFKB activator; FEO; OFE; ODFR; OSTS; PDB2; RANK; CD265; OPTB7; TRANCER; LOH18CR1; loss of heterozygosity, 18, chromosomal region 1; osteoclast differentiation factor receptor; receptor activator of nuclear factor-kappa B; tumor necrosis factor receptor superfamily, member 11a; tumor necrosis factor receptor superfamily, member 11a, activator of NFKB
Gene ID	8792

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mRNA Refseq	NM_003839
Protein Refseq	NP_003830
MIM	603499
UniProt ID	Q9Y6Q6
Chromosome Location	18q22.1
Pathway	Cytokine-cytokine receptor interaction
Function	protein binding; receptor activity

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