

Recombinant Human RANKL/TNFSF11 Protein

Catalog No. PKSH031027

Note: Centrifuge before opening to ensure complete recovery of vial contents.

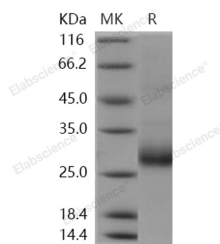
Description

Synonyms	CD254;ODF;OPGL;RANKL;TNFSF11;CD254;Osteoclast differentiation factor;Receptor activator of nuclear factor kappa-B ligand;tumor necrosis factor ligand superfamily member 11;hRANKL2;OPTB2;RANKL;sOdf
Species	Human
Expression Host	HEK293 Cells
Sequence	Gly 64-Asp 245
Accession	AAC51762.1
Calculated Molecular Weight	20.5 kDa
Observed molecular weight	27 kDa
Tag	None
Bioactivity	1. Immobilized human TNFSF11 at 2 µg/ml (100 µl/well) can bind biotinylated human Osteoprotegerin hFc, The EC50 of human Osteoprotegerin hFc is 5-40 ng/ml. 2. The bioactivity of hRANKL was determined by measuring the ability of hRANKL to induce TRAP activity in Raw 264. 7 cells. The ED ₅₀ for this effect is typically 1.5-7.5 ng/mL.

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

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Background

Tumor necrosis factor ligand superfamily member 10 (TNFSF10), also known as TNF-related apoptosis-inducing ligand (TRAIL), Apo-2 ligand, and CD253, is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. TNFSF10 functions as a ligand that induces the process of cell death called apoptosis. TNFSF10 shows homology to other members of the tumor necrosis factor superfamily. As one member of the cluster of differentiation system, TNFSF10 is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion TNFSF10 binds to several members of TNF receptor superfamily including TNFRSF10A / TRAILR1, TNFRSF10B / TRAILR2, TNFRSF10C / TRAILR3, TNFRSF10D / TRAILR4, and possibly also to TNFRSF11B/OPG. The activity of TNFSF10 / TRAIL may be modulated by binding to the decoy receptors TNFRSF10C / TRAILR3, TNFRSF10D/TRAILR4, and TNFRSF11B/OPG that cannot induce apoptosis. The binding of this protein to its receptors has been shown to trigger the activation of MAPK8 / JNK, caspase 8, and caspase 3. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

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