Recombinant Human RANKL/TNFSF11 Protein (His Tag)

Catalog No. PKSH032986

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

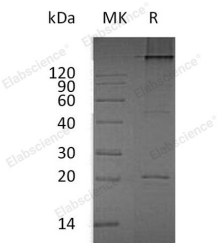
Description

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	E.coli
Sequence	Glu 143-Asp317
Accession	O14788
Calculated Molecular Weight	20.7 kDa
Observed molecular weight	17 kDa
Tag	C-His
Bioactivity	Measure by its ability to induce osteoclast differentiation in RAW264.7 cells. The ED_{50} for this effect is < 10 ng/mL.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS,pH 8.0. 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



> 98 % as determined by reducing SDS-PAGE.

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Background

CD254, also known as RANKL, TNFSF11, TRANCE, OPGL and ODF, is a type II membrane protein of the tumor necrosis factor (TNF) superfamily, and affects the immune system and control bone regeneration and remodeling. RANKL is the ligand of nuclear factor (NF)-κB (RANK). When RANKL binds to RANK, it will undergo trimerization and then bind to an adaptor molecule TNF receptor-associated factor 6 (TRAF6). This results in the activation of several downstream signaling cascades, including the NFκB, mitogen-activated protein kinases (MAPK), activating protein 1 (AP-1), and nuclear factor of activated T cells (NFATc1), resulting in the formation of multinucleated bone-resorbing osteoclasts. RANKL is widely expressed in skeletal muscle, thymus, liver, colon, small intestine, adrenal gland, osteoblast, mammary gland epithelial cells, prostate and pancreas.

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