RANKL (soluble) (human), (recombinant)

RANK ligand (RANKL), also called TRANCE, OPGL and ODF, is a member of the TNF family that is expressed in activated T cells, lymph nodes and in stromal cell lines. RANKL (TRANCE) interacts with its receptor RANK expressed on mature dendritic cells (DC) and mature osteoclasts, leading to the inhibition of apoptosis, probably through the upregulation of bcl-x. RANKL is, therefore, a useful tool for enhancing DC and osteoclast survival and activity. Osteoprotegerin (OPG) is a potent inhibitor of RANKL.
Historical data has shown that the biological activity of RANKL supports the survival of dendritic cells and osteoclasts.

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ALX-522-012-C010	10µg

Manuals, SDS & CofA View Online »

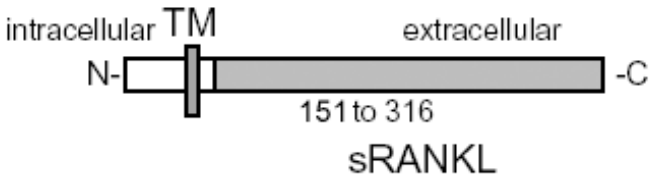


Figure 1: *Schematic structure of human rhsRANKL (peptide, aa. 151-316).*

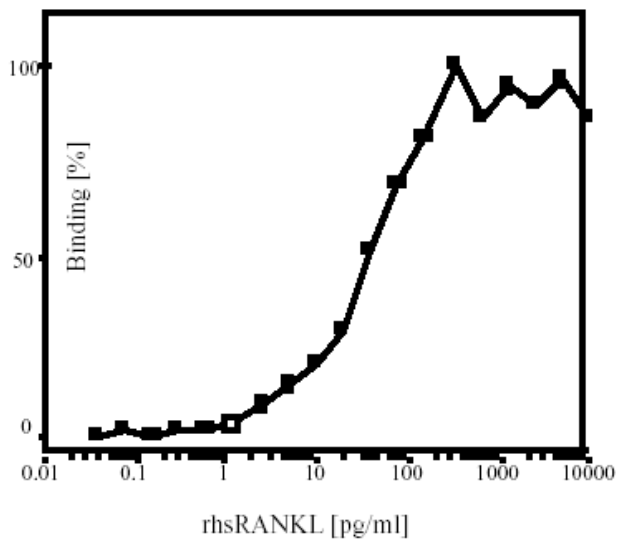
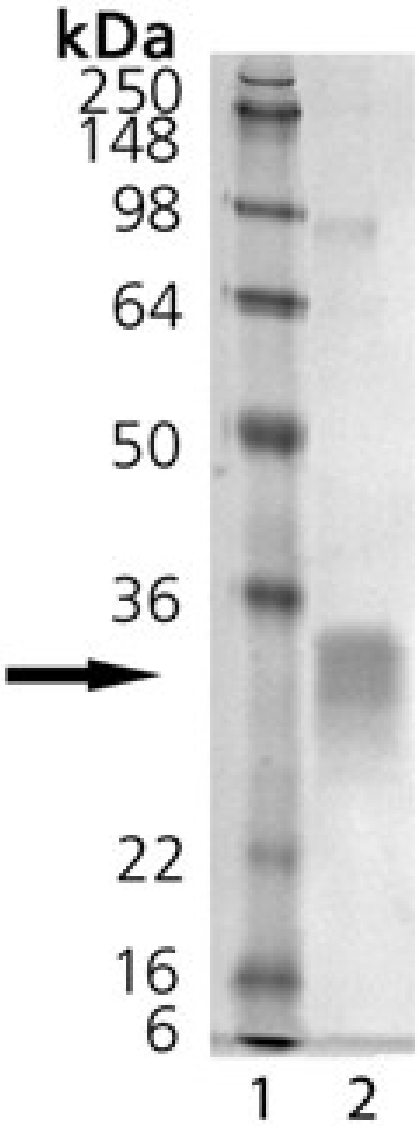


Figure 2: Binding of rhsRANKL to Osteoprotegerin. Recombinant, human sRANKL binds to Osteoprotegerin:Fc (see Prod. No. ALX-522-007).
Method: Ligand binding assay: 96 well ELISA plates were coated O/N with 50 ng OPG-Fc (Prod. No. ALX-522-007) per well. After a blocking step



SDS-PAGE Analysis of RANKL (soluble) (human), (recombinant). Lane 1: MW Marker, Lane 2: 1µg.

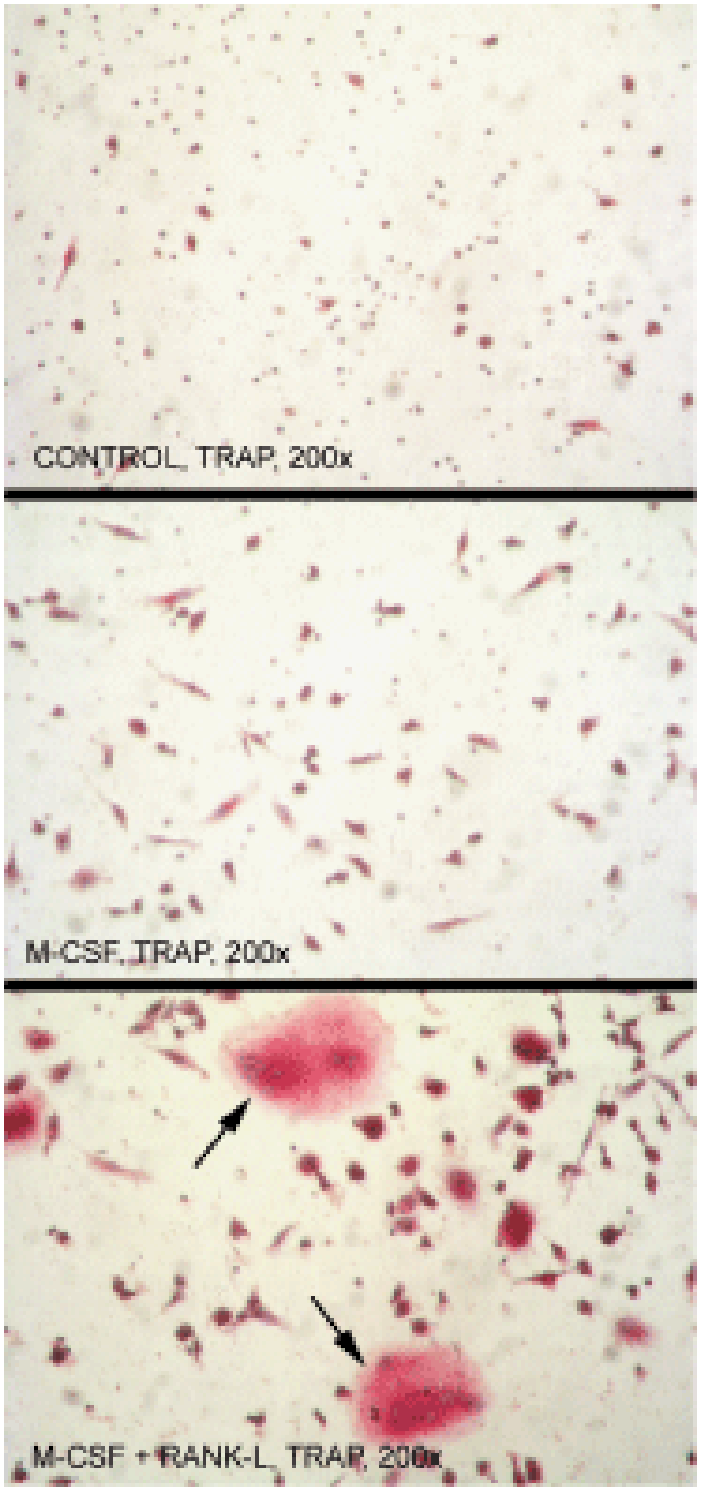


Figure 3: Mononuclear cells differentiate into Osteoclasts in the presence of M-CSF and RANKL, Soluble (human) (recombinant) (ALX-522-012). **Method:** Human CD14+ mononuclear cells isolated from adult peripheral blood were cultured in control medium (upper panel), in 25ng/ml M-CSF (middle panel), or in 25ng/ml M-CSF plus 50ng/ml RANKL (lower panel). Osteoclasts were identified as Tartrate-Resistant Acid Phosphatase (TRAP)-positive multinucleated cells. Osteoclasts were detected exclusively in presence of RANKL and in these culture conditions (M-CSF + RANKL), cells fused and generated multinucleated dark red TRAP-positive cells (arrows). Nuclei were stained with haematoxylin. Original magnification: 200x. *Picture courtesy of V.Kindler and D.Suvà, University of Geneva.*“”,RANKL

Handling & Storage

Use/Stability	Stable for at least 6 months after receipt when stored at -20°C.
Handling	Avoid freeze/thaw cycles. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	TRANCE, OPGL, ODF, TNFSF 11, CD254
Application Notes	ELISA: binds to RANK receptor.
Concentration	0.1mg/ml after reconstitution.
Endotoxin Content	<0.1EU/µg purified protein (LAL test; Associates of Cape Cod).
Formulation	Lyophilized. Contains PBS.
MW	~18kDa (non-glycosylated), ~28kDa (glycosylated) (SDS-PAGE).
Purity	≥90% (SDS-PAGE)
Reconstitution	Reconstitute with 100µl sterile water. Further dilutions should be made with medium containing 5% fetal calf serum or a carrier protein.
Solubility	Soluble in water.
Source	Produced in HEK 293 cells. The extracellular domain of human RANKL (aa 152-317) is fused at the N-terminus to a linker peptide (6 aa) and a FLAG®-tag.
Specificity	Binds to human and mouse RANK.
Technical Info / Product Notes	FLAG is a registered trademark of Sigma-Aldrich Co.

UniProt ID O14788

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