

## Human sRANKL Antibody Pair Set

<b>Catalog No.</b>	E-KAB-0246	<b>Applications</b>	ELISA
<b>Synonyms</b>	TNFSF11, CD254, ODF, OPGL, OPTB2, RANKL, TRANCE, hRANKL2, sOdf, TNLG6B, tumor necrosis factor superfamily member 11, TNF superfamily member 11		

### Kit components & Storage

Title	Specifications	Storage
Human sRANKL Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze / thaw cycles.
Human sRANKL Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze / thaw cycles.

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

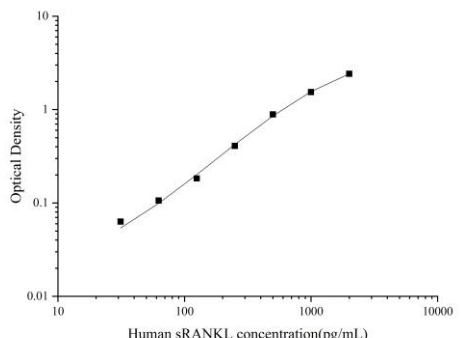
### Product Information

Items		Characteristic (E-KAB-0246)	
		Human sRANKL Capture Antibody	Human sRANKL Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Human sRANKL protein	Recombinant Human sRANKL protein
	Swissprot	O14788(140~317aa)	
Product details	Reactivity	Human	Human
	Host	Mouse	Mouse
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Protein A	Protein A
Specificity	Detects Human sRANKL in ELISAs.		

### For Research Use Only

## Applications

### Human sRANKL Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																
ELISA Capture	0.5-4µg/mL	Human sRANKL Capture Antibody	 <p>The graph is a log-log plot. The y-axis is labeled 'Optical Density' and ranges from 0.01 to 10. The x-axis is labeled 'Human sRANKL concentration(pg/mL)' and ranges from 10 to 10000. There are seven data points plotted as black squares, connected by a solid line. The points show a clear upward trend, indicating a positive correlation between concentration and optical density.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human sRANKL concentration (pg/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr><td>20</td><td>0.05</td></tr> <tr><td>50</td><td>0.1</td></tr> <tr><td>100</td><td>0.2</td></tr> <tr><td>200</td><td>0.4</td></tr> <tr><td>500</td><td>0.8</td></tr> <tr><td>1000</td><td>1.5</td></tr> <tr><td>2000</td><td>2.5</td></tr> </tbody> </table>	Human sRANKL concentration (pg/mL)	Optical Density	20	0.05	50	0.1	100	0.2	200	0.4	500	0.8	1000	1.5	2000	2.5
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ELISA Detection	1:1000-1:10000	Human sRANKL Detection Antibody (Biotin)																	

**Note:** This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

## Background

Cytokine that binds to TNFRSF11B/OPG and to TNFRSF11A/RANK. Osteoclast differentiation and activation factor. Augments the ability of dendritic cells to stimulate naive T-cell proliferation. May be an important regulator of interactions between T-cells and dendritic cells and may play a role in the regulation of the T-cell-dependent immune response. May also play an important role in enhanced bone-resorption in humoral hypercalcemia of malignancy. Induces osteoclastogenesis by activating multiple signaling pathways in osteoclast precursor cells, chief among which is induction of long lasting oscillations in the intracellular concentration of Ca<sup>2+</sup> resulting in the activation of NFATC1, which translocates to the nucleus and induces osteoclast-specific gene transcription to allow differentiation of osteoclasts. During osteoclast differentiation, in a TMEM64 and ATP2A2-dependent manner induces activation of CREB1 and mitochondrial ROS generation necessary for proper osteoclast generation.