APA855Mu62 100μg
Active Receptor Activator Of Nuclear Factor Kappa B Ligand (RANkL)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Eukaryotic expression.
Host: 293F cell
Residues: Lys158~Asp316
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 5% Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.4
Predicted Molecular Mass: 19.4kDa
Accurate Molecular Mass: 23kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the

protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

KPEAQPFAHLTINAASIPSGSHKVTLSSWYHDRGWAKISNMTLSNGKLRVNQDGFYYLYANICFRHHETSG
SVPTDYLQLMVYVVKTSIKIPSSHNLMKGGSTKNWSGNSEFHFYSINVGGFFKLRAGEEISIQVSNPSLLD
PDQDATYFGAFKVQDID

[ACTIVITY]

Receptor Activator of Nuclear Factor Kappa B Ligand (RANKL) is a key cytokine belonging to the TNF superfamily, primarily produced by osteoblasts, activated T cells, and bone marrow stromal cells. It plays a pivotal role in osteoclast differentiation, bone remodeling, and immune regulation by binding to its receptor RANK. RANKL exists in both membrane-bound and soluble forms, with the membrane-bound form exhibiting stronger biological activity. Dysregulation of RANKL is linked to osteoporosis, rheumatoid arthritis, and cancer-induced bone destruction. Therapeutically, RANKL inhibitors like denosumab are used to treat bone loss disorders.To detect the activity of recombinant RANKL, a functional ELISA assay was performed to evaluate the interaction between recombinant mouse RANKL and recombinant human RANK.Briefly, biotin-linked RANK were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to RANKL-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μl stop solution to the wells and read at 450nm immediately. The binding activity of recombinant mouse RANKL and recombinant human RANK was shown in Figure 1, the EC50 for this effect is 0.039μg/mL.

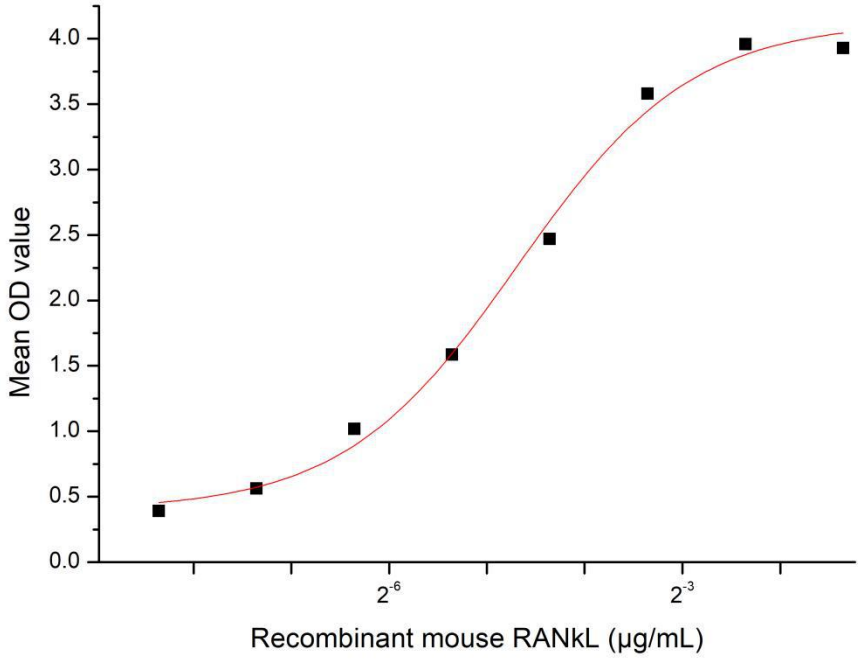

Figure 1. The binding activity of recombinant mouse RANKL and recombinant human RANK

[IDENTIFICATION]

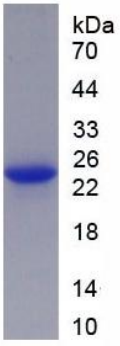

Figure 2. SDS-PAGE

Sample: Active recombinant RANkL, Mouse

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.