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## **Product Datasheet**

## Mouse RANKL protein, His and GST tag, Unconjugated GTX00319-PRO

| Article Name               | Mouse RANKL protein, His and GST tag, Unconjugated  |
|----------------------------|---|
| Biozol Catalog Number      | GTX00319-PRO  |
| Supplier Catalog Number    | GTX00319-pro  |
| Alternative Catalog Number | GTX00319-PRO-10   |
| Manufacturer               | GeneTex   |
| Category                   | Proteine/Peptide  |
| Application                | FA  |
| Species Reactivity         | Mouse   |
| Conjugation                | Unconjugated  |
| NCBI                       | 21943   |
| UniProt                    | O35235  |
| Buffer                     | Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300. |
| Expression System          | E. coli   |
| Form                       | Lyophilized powder  |
| Sequence                   | N-terminal His and GST-Tag, Leu92~Trp263 (NP_035743.2)  |

(TNFSF11), TNF-related activation-induced cytokine (TRANCE), osteoprotegerin ligand (OPGL), and osteoclast differentiation factor (ODF), is a protein that in humans is encoded by the TNFSF11 gene. RANKL is a member of the tumor necrosis factor (TNF) cytokine family, it binds to RANK on cells of the myeloid lineage and functions as a key factor for osteoclast differentiation and activation. It may also bind to osteoprotegerin, a protein secreted mainly by cells of the osteoblast lineage which is a potent inhibitor of osteoclast formation by preventing binding of RANKL to RANK. RANKL also has a function in the immune system, where it is expressed by T helper cells and is thought to be involved in dendritic cell maturation. This protein was shown to be a dendritic cell survival factor and is involved in the regulation of T cell-dependent immune response. Besides, Peroxisome Proliferator Activated Receptor Gamma (PPARg) has been identified as an interactor of RANKL, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse RANKL and recombinant mouse PPARg. Briefly, RANKL were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to PPARg-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-RANKL pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells

were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of RANKLand PPARg was in a dose dependent

manner.

Receptor activator of nuclear factor kappa-B ligand (RANKL), also known as tumor necrosis factor ligand superfamily member 11

**Application Notes**