



Recombinant Protein Technical Manual
Recombinant Mouse Osteoprotegerin/TNFRSF11B
Protein (His Tag)
RPES0382

Product Data:

Product SKU: RPES0382

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: O08712

Protein Information:

Molecular Mass: 45.1 kDa

AP Molecular Mass: 50-55 kDa

Tag: C-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Tumor necrosis factor receptor superfamily member 11B; Osteoclastogenesis inhibitory factor; Osteoprotegerin; Tnfrsf11b; Ocif; Opg;TR1

Immunogen Information:

Sequence: Glu22-Leu401

Background:

Osteoprotegerin (OPG, Tnfrsf11b) is a secreted protein that regulates bone density. OPG is widely expressed and constitutively released as a homodimer by mesenchymal stem cells, fibroblasts and endothelial cells. Regulation of its expression by estrogen, parathyroid hormone and cytokines is complex and changes with age. OPG acts as decoy receptor for TNFSF11/RANKL and thereby neutralizes its function in osteoclastogenesis. TRAIL decreases the release of OPG from cells that express it, while OPG inhibits TRAIL-induced apoptosis. Expression of RANK L on the cell surface, and thus its ability to stimulate osteoclastogenesis, is regulated by OPG by intracellular and extracellular mechanisms. Bone homeostasis seems to depend on the local ratio between TNFSF11 and TNFRSF11B. It may also play a role in preventing arterial calcification.