



PRODUCT DATA SHEET

Product: Osteoprotegerin (rhOPG:Fc)

Cat. No: BP-002 (50 µg)

Recombinant Protein:

The cysteine-rich region of human Osteoprotegerin (aa 22-202) is fused to the Fc portion of human IgG1. The chimeric protein has an apparent molecular mass of 61 kDa by SDS-PAGE (reducing conditions).

Species Reactivity:

rhOPG:Fc reacts exclusively with human TRAIL and RANKL/TRANCE. Other species not tested.

Format:

Lyophilized human Osteoprotegerin, 1 mg/ml in PBS after constitution.

Production:

The recombinant protein is produced in human embryo kidney cells.

Purification:

>95% as determined by SDS-PAGE.

Applications:

- Inhibition of TRAIL-mediated apoptosis.

The rhOPG:Fc recombinant protein exerts its inhibitory activity in the concentration range of 5-20 µg/ml. (Human Jurkat lymphoma cells (50,000 cells in 100 µl DMEM medium containing 5% fetal calf serum) were incubated with 0.1 µg/ml sTRAIL (Kamiya cat.# TR-001) plus 2 µg/ml enhancer (anti-flag antibody M2) and increasing concentrations of rhOPG:Fc fusion protein in a 96-well plate for 16 hr at 37°C. Concentrations of rhOPG:Fc required to inhibit may vary depending on the cell type studied and on the concentration of sTRAIL used to kill the cells.

Protocol:

Prepare by dissolving in 50 µl of sterile water. Further dilutions should be made with a medium containing 5% fetal calf serum or a carrier protein.

Storage and Stability:

This product is stable at -20°C for at least 6 months. Once rehydrated it is recommended to prepare appropriate aliquots and to store them at -20°C. Avoid repeated freezing and thawing (activity may decrease).

References:

1. H. Yasuda, et al. (1998) *Identity of osteoclastogenesis inhibitory factor (OCIF) and osteoprotegerin (OPG): a mechanism by which OPG/OCIF inhibits osteoclastogenesis in vivo.* Endocrinology **139**: 1329-1337.
2. J.G. Emery, et al. (1998) *Osteoprotegerin is a receptor for the cytotoxic ligand TRAIL.* J. Biol. Chem. **273**: 1463-1467.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.