PRODUCT DATA SHEET

Product: TNF-R2, human recombinant

Cat. No: **TN-004 (50 µg)**

Background:
TNF-Receptors (TNF-R) are implicated in inflammatory processes and are the prototype members of the TNF receptor family. There are two distinct TNF-R, i.e. TNF-R1 and TNF-R2, that interact with the ligand TNF-α. Whereas both receptors activate NF-κB and JNK, TNF-R1 also signals cell death. Activated TNF-R1 contains a death domain in its cytoplasmic region that recruits the adaptor proteins TRADD, RIP, FADD, and TRAF2. TNF-R2 recruits TRAF proteins. Whereas membrane-bound and processed, soluble TNF-α bind to TNF-R1, only the membrane-bound form appears to interact with TNF-R2.

Molecular Weight: 80 kDa (chimeric protein)

Specificity:
Highly specific for the detection of membrane-bound TNF-α.

Species Reactivity:
Human, other species not tested.

Source:
Recombinant human TNF-R2:Fc. The recombinant protein is produced in HEK 293 cells. The extracellular domain of human TNF-R2 (aa 1-257) is fused to the Fc portion of human IgG1.

Format:
Lyophilized powder. Contains PBS. Purity >95% as determined by SDS-PAGE.

Preparation:
Prepare a sterile stock solution of rhTNF-R2:Fc (1 mg/ml in PBS) by dissolving the entire preparation in 50 µl sterile H_2O. Further dilutions should be made with medium containing 5% fetal calf serum or carrier protein.

Storage and Stability:
Stable for at least 6 months when stored at -20°C. Avoid repeat freeze/thaws.

Applications:
- Inhibition of TNF-mediated apoptosis: Exerts inhibitory activity at concentrations higher than 1000 ng/ml. TNF-R2:Fc prefentially interacts with the membrane-bound form of TNF-α. Concentrations of rhTNF-R2 required to block killing may vary depending on cell type studied.

  Method: Murine WEHI 164 cells (50,000 cells in 100 µl RPMI medium containing 10% fetal calf serum) were plated in a 96 well plate. 100 pg/ml rhsTNF-α were incubated with the indicated concentrations of rhTNFR2:Fc for 30 minutes at RT. Then the mixture was added to the WEHI 164 target cells and incubated for at least 12 hr at 37°C. Concentrations of rhsTNF-α required to kill cells may vary depending on cell type studied. Concentrations of rhTNFR2:Fc required to block killing may vary depending on cell type studied.

  Cell viability was determined using a MTT-based cell proliferation assay kit.

The optimal dilution for a specific application should be determined by the researcher.

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.