PRODUCT DATA SHEET

Product: TNF-α, soluble (mouse recombinant)

Cat. No.: **TN-001 (50 µg)**

Host:
Recombinant protein produced in *E. coli*.

Recombinant Protein:
The extracellular domain of mouse tumor necrosis factor-α (TNF-α) (amino acids 77-235) is fused at the N-terminus to an 8 amino acid linker peptide and a FLAG tag. Molecular weight ~20 kDa by SDS-PAGE.

Format:
Lyophilized powder containing 50 µg recombinant TNF-α and PBS, 1 mg/mL TNF-α after reconstitution.

Purity:
≥ 95% as determined by SDS-PAGE.

Endotoxin content:
< 0.1 EU/µg purified protein (LAL test; Bio Whittaker).

Reconstitution:
Prepare a 1 mg/mL stock solution by dissolving the contents of the vial in 50 µL of sterile H_20. Further dilutions should be made with medium containing 5% fetal calf serum.

Specificity:
TNF-α binds to human, mouse and rat TNF-R1 and less efficiently to TNF-R2. In the presence of cross-linking enhancer (Cat. No. TN-010), TNF-α shows a significantly higher affinity for TNF-R2 than for TNF-R1, mimicking the characteristics of membrane bound TNF-α.

Species Reactivity:
Human, mouse and rat. Others not tested.

Specific Activity:
ED_{50}: 0.02 ng/mL (WEHI 164 cells)

Applications:
- Induction of TNF-R1 and TNF-R2 mediated responses. Induction of TNF-R2 mediated responses requires addition of a secondary cross-linking anti-FLAG antibody (see Cat. No. TN-010: TNF-α, soluble (mouse recombinant) Kit).

- Inducing Apoptosis: Recombinant mouse TNF-α protein induces apoptosis in WEHI 164 and other TNF-α sensitive cells. Optimal concentration varies with cell type and should be determined by testing serial dilutions on cells (For WEHI 164 cells use 0.5-1 ng/mL).

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

Storage:
Store at -20°C. Aliquot solutions to avoid repeated freeze/thaw. Lyophilized product is stable at -20°C for at least 6 months.

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.