Human Tumor Necrosis Factor-α (hTNF-α)

Source: Recombinant human TNF-α (hTNF-α) Val77-Leu233 (Accession #HUMTNFAB) was produced in E. coli at Cell Signaling Technology.

Molecular Characterization: Recombinant hTNF-α does not have a Met on the amino terminus and has a calculated MW of 17,352. DTT-reduced and non-reduced protein migrate as 18 kDa polypeptides. The expected amino-terminal VRSSS of recombinant hTNF-α was verified by amino acid sequencing. TNF-α is a non-disulfide-linked homotrimer in solution as determined by chemical cross-linking.

Endotoxin: Less than 0.01 ng endotoxin/1 μg hTNF-α.

Purity: >98% as determined by SDS-PAGE of 6 μg reduced (+) and non-reduced (-) recombinant hTNF-α. All lots are greater than 98% pure.

Western blot analysis of extracts from HeLa cells treated with hTNF-α for 20 minutes, using Phospho-NF-κB p65 (Ser536) (93H1) Rabbit mAb #3033 (upper) and total NF-κB p65 Antibody #3034 (lower).

Bioactivity: The bioactivity of hTNF-α was determined in an L-929 cell viability assay. The OD_{595} of each lot is between 10–500 pg/ml.

The viability of L-929 cells treated with increasing amounts of hTNF-α in the presence of 2 ng/ml actinomycin D was determined. Cells were stained with crystal violet at the end of treatment and the OD_{595} was determined.

Background References: