

TNF-α

Catalog # PVGS1503

Product Information

Primary Accession Q06599
Species Bovine

Sequence Ieu78-Ieu234

Purity > 95% as analyzed by SDS-PAGE

> 95% as analyzed by HPLC

Endotoxin Level

Expression System E. coli

Formulation Lyophilized after extensive dialysis against PBS.

Reconstitution It is recommended that this vial be briefly centrifuged prior to opening to

bring the contents to the bottom. Reconstitute the lyophilized powder in

ddH₂O or PBS up to 100 □g/ml.

Storage & Stability Upon receiving, this product remains stable for up to 6 months at lower than

-70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw

cycles.

Additional Information

Gene ID 280943

Other Names Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand

superfamily member 2, TNF-a, Tumor necrosis factor, membrane form, N-terminal fragment, NTF, Intracellular domain 1, ICD1, Intracellular domain 2, ICD2, C-domain 1, C-domain 2, Tumor necrosis factor, soluble form, TNF,

TNFA, TNFSF2

Target Background Tumor Necrosis Factor-Alpha (TNF-α) plays a major role in regulating growth,

differentiation, inflammation, viral replication, tumorigenesis, and

autoimmune diseases. TNF alpha-1a is a potent lymphoid factor that exerts cytotoxic effects on a wide range of tumor cells. In addition to inducing hemorrhagic necrosis of tumors, studies indicate TNF is involved in tumor igenesis, tumor metastasis, viral replication, septic shock, fever, inflammation,

Crohn's disease, rheumatoid arthritis and graft-versus-host disease.

Protein Information

Name TNF

Synonyms TNFA, TNFSF2

Function Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly

secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under

certain conditions it can stimulate cell proliferation and induce cell differentiation (By similarity). Induces insulin resistance in adipocytes via

inhibition of insulin-induced IRS1 tyrosine phosphorylation and

insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity). Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6 (By similarity). Promotes osteoclastogenesis

and therefore mediates bone resorption (By similarity).

Cellular Location Cell membrane; Single-pass type II membrane protein [Tumor necrosis factor,

soluble form]: Secreted [C-domain 2]: Secreted.

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