Recombinant Canine Tumor Necrosis Factor-alpha (rCaTNF-α)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	133-01
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 157 amino acids.
Quantity:	5μg/20μg/1000μg
AA Sequence:	VKSSSRTPSD KPVAHVVANP EAEGQLQWLS RRANALLANG VELTDNQLIV PSDGLYLIYS QVLFKGQGCP STHVLLTHTI SRFAVSYQTK VNLLSAIKSP CQRETPEGTE AKPWYEPIYL GGVFQLEKGD RLSAEINLPN YLDFAESGQV YFGIIAL
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} as determined by a cytotoxicity assay using murine L929 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0×10^6 IU/mg in the presence of actinomycin D.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1 EU/μg of rCaTNF-α as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. **NOT FOR HUMAN USE**.

Canine Tumor Necrosis Factor-alpha

Tumor necrosis factor alpha (TNF-α), also called cachectin, is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. TNF-α occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. The naturally-occurring form of TNF-α is glycosylated, but non-glycosylated recombinant TNF-α has comparable biological activity. The biologically active native form of TNF-α is reportedly a trimer. Two types of receptors for TNF-α have been described and virtually all cell types studied show the presence of one or both of these receptor types.