

## TNF

### Recombinant Canine Tumor Necrosis Factor-alpha

|                                 |   |                  |                       |
|---------------------------------|---|------------------|-----------------------|
| <b>Catalog No.</b>              | CS498A<br>CS498B<br>CS498C  | <b>Quantity:</b> | 5 µg<br>20 µg<br>1 mg |
| <b>Alternate Names:</b>         | TNFA, cTNF, cachectin, tumor necrosis factor ligand superfamily member 2  |                  |                       |
| <b>Description:</b>             | <p>Tumor necrosis factor alpha (TNF-alpha), 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-alpha occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. The naturally-occurring form of TNF-alpha is glycosylated, but non-glycosylated recombinant TNF-alpha has comparable biological activity. The biologically active native form of TNF-alpha is reportedly a trimer. Two types of receptors for TNF-alpha have been described and virtually all cell types studied show the presence of one or both of these receptor types.</p> <p>Recombinant Canine TNF-alpha a single non-glycosylated polypeptide chain containing 157 amino acids.</p> |                  |                       |
| <b>Gene ID:</b>                 | 403922  |                  |                       |
| <b>Source:</b>                  | <i>E. coli</i>  |                  |                       |
| <b>Molecular Weight:</b>        | ~17.3 kDa   |                  |                       |
| <b>Formulation:</b>             | Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.0.  |                  |                       |
| <b>Purity:</b>                  | >95% by SDS-PAGE and HPLC analyses.   |                  |                       |
| <b>Endotoxin Level:</b>         | <1 EU/µg as determined by LAL method.   |                  |                       |
| <b>Biological Activity:</b>     | Fully biologically active when compared to standard. The ED <sub>50</sub> determined by a cytotoxicity assay using mouse L929 cells is less than 0.1 ng/ml  |                  |                       |
| <b>Specific Activity:</b>       | >1.0 × 10 <sup>7</sup> IU/mg in the presence of actinomycin D.  |                  |                       |
| <b>Amino Acid Sequence:</b>     | VKSSSRTPSD KPVAHVVANP EAEGQLQWLS RRANALLANG VELTDNQLIV<br>PSDGLYLIYS QVLFKGGQCP STHVLLTHTI SRFVSYQTK VNLLSAIKSP<br>CQRETPEGTE AKPWYEPIYL GGVFQLEKGD RLSAEINLPN YLDFAESGQV YFGIIAL   |                  |                       |
| <b>Reconstitution:</b>          | <b>Centrifuge vial prior to opening.</b> Add sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. This depends upon the particular application employed. Further dilutions should be made in appropriate buffered solutions.  |                  |                       |
| <b>Storage &amp; Stability:</b> | This lyophilized preparation is stable at 2-8°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>  |                  |                       |

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