

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant TNF- $\alpha$ , Bovine

Catalog Number: BK0168-50 $\mu$ g

Source: Escherichia coli.

Quantity: 50 $\mu$ g

### Description:

Tumor Necrosis Factor-Alpha (TNF- $\alpha$ ) 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. Recombinant Bovine Tumor Necrosis Factor-alpha (rbTNF- $\alpha$ ) produced in E.coli cells is a single non-glycosylated polypeptide chain containing 80 amino acids. A fully biologically active molecule, rbTNF- $\alpha$  has a molecular mass of 17.6 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

### Molecular Weight:

17.6 kDa, observed by reducing SDS-PAGE

### Purity:

> 95% as analyzed by SDS-PAGE & HPLC

### Biological Activity:

ED50 < 0.1  $\mu$ g/ml, measured in a cytotoxicity assay using mouse L-929 cells in the presence of actinomycin D, corresponding to a specific activity of > 1  $\times$  10<sup>4</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) pow-

der.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

MLRSSSQASSNKPVAVHVA-  
DINSPGQLRWWDSYANAL-  
MANGVKLEDNQLVVPADGLYLIYSQVLFGRGQC  
PSTPLFLTHTISRIAVSYQTKVNIL-  
SAIKSPCHRETPEWAEAKPWYEPIYQGGVFQLEK  
GDRLSAEINLPDYLDYAESGQVYFGIHAL

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

### Storage:

Lyophilized recombinant Bovine TNF- $\alpha$  remains stable up to 6 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, Bovine TNF- $\alpha$  should be stable up to 1 week at 4  $^{\circ}$ C or up to 3 months at -20  $^{\circ}$ C.

### Usage:

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