

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant TNF- $\alpha$ , Human (P. pastoris-expressed)

Catalog Number: BK0347-1mg

Source: P. pastoris

Quantity: 1mg

### Description:

Tumor Necrosis Factor-Alpha (TNF-alpha) plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune diseases. Besides inducing hemorrhagic necrosis of tumors, TNF has been found to be involved in tumorigenesis, tumor metastasis, viral replication, septic shock, fever, inflammation, and autoimmune diseases including Crohn's disease, and rheumatoid arthritis as well as graft-versus-host disease. TNF alpha-1a is a potent lymphoid factor that exerts cytotoxic effects on a wide range of tumor cells and certain other target cells. Recombinant human Tumor Necrosis Factor-Alpha (rhTNF-alpha) produced in Pichia pastoris is a glycosylated polypeptide chain of 157 amino acids. A fully biologically active molecule, rhTNF-alpha has a molecular mass of 17.4kDa analyzed by reducing SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques at GenScript.

### Molecular Weight:

17.4kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE analysis.

### Biological Activity:

ED50 < 0.08ng/ml, measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D, corresponding to a specific activity of > 1.25 x 10<sup>7</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

VRSSSRTPSDKPVVAHVANPQAEGQLQWLNR-  
RANALLANGVELRD-  
NQLVVPSEGLYLIYSQVLFKGGQCPSTHVLLTHTI  
SRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPW  
YEPIYLGGVFQLEKG-  
DRLSAEINRPDYLDFAESGQVYFGIIL

### Endotoxin:

< 1.0 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

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

### Storage:

Lyophilized recombinant human Tumor Necrosis Factor-Alpha (rhTNF-alpha) remains stable up to 12 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, rhTNF-alpha should be stable up to 4 weeks at 4  $^{\circ}$ C or up to 6 months at -20  $^{\circ}$ C.

### Usage:

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