## **Product Datasheet**

## Recombinant murine Tumor Necrosis Factor-a (rm TNF-a)

Catalog No: #72301



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Description	
Product Name	Recombinant murine Tumor Necrosis Factor-a (rm TNF-a)
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 98 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Ms
Target Name	rm TNF-a
Other Names	Tumor Necrosis Factor, TNFSF2, Cachectin, Differentiation-inducing factor , DIF, Necrosin, Cytotoxin
Accession No.	accession:P06804 GeneID:21926
Uniprot	P06804
GenelD	21926;
Calculated MW	Approximately 17.4 kDa. The re
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN GMDLKDNQLV VPADGLYLVY
	SQVLFKGQGC PDYVLLTHTV SRFAISYQEK VNLLSAVKSP CPKDTPEGAE LKPWYEPIYL GGVFQLEKGD
	QLSAEVNLPK YLDFAESGQV YFGVIAL
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.2.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably
	desiccated. 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 -70 °C. Avoid repeated
	freeze thaw cycles.

## Background

Tumor necrosis factor alpha (TNF- $\alpha$ ), also called cachectin, is the best-know member of the TNF-family, which can cause cell death. This protein 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. Human and murine TNF- $\alpha$  show approximately 79 % homology at the amino acid level and cross-reactivity between the two species. 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.

## References

- 1. Davenport C, Kenny H, Ashley DT, et al. 2012. Eur J Clin Invest, 42: 1173-9.
- 2. Cavalcanti YV, Brelaz MC, Neves JK, et al. 2012. Pulm Med, 2012: 745483.
- 3. Sheng WS, Hu S, Ni HT, et al. 2005. J Leukoc Biol, 78: 1233-41.
- 4. Berthold-Losleben MandHimmerich H. 2008. Curr Neuropharmacol, 6: 193-202.

Note: This product is for in vitro research use only