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## Product Datasheet

### Recombinant Human TNF alpha (N-6His) EBT-EPT202

Article Name	Recombinant Human TNF alpha (N-6His)
Biozol Catalog Number	EBT-EPT202
Supplier Catalog Number	EPT202
Alternative Catalog Number	EBT-EPT202-50
Manufacturer	ELK Biotechnology
Category	Proteine/Peptide
Product Description	Recombinant Human Tumor Necrosis Factor Alpha is produced by our E.coli expression system and the target gene encoding Gly57-Leu233 is expressed with a 6His tag at the N-terminus....
Molecular Weight	Molecular weight: 21.8 KDa. Apparent molecular weight: 18 KDa, reducing conditions
UniProt	<a href="#">P01375</a>
Purity	Greater than 95% as determined by reducing SDS-PAGE.

Application Notes	<p>Redissolve: Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.. Endotoxin: Less than 0.1 ng/µg (1 EU/µg) as determined by LAL test. Background: Tumor Necrosis Factor-alpha (TNF-alpha) is secreted by macrophages, monocytes, neutrophils, T-cells, and NK-cells following stimulation by bacterial LPS. Cells expressing CD4 secrete TNF-alpha while cells that express CD8 secrete little or no TNF-alpha. Synthesis of TNF-alpha can be induced by many different stimuli including interferons, IL2, and GM-CSF. The clinical use of the potent anti-tumor activity of TNF-alpha has been limited by the proinflammatory side effects such as fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF-alpha mutants with low systemic toxicity has been of intense pharmacological interest. Human TNF-alpha that binds to murine TNF-R55 but not murine TNF-R7, exhibits retained anti-tumor activity and reduced systemic toxicity in mice compared with murine TNF-alpha, which binds to both murine TNF receptors. Based on these results, many TNF-alpha mutants that selectively bind to TNF-R55 have been designed. These mutants displayed cytotoxic activities on tumor cell lines in vitro and have exhibited lower systemic toxicity in vivo. Recombinant Human TNF-alpha High Active Mutant differs from the wild-type by amino acid substitution of amino acids 1-7 with Arg8, Lys9, Arg10 and Phe157. This mutant form has been shown to have increased activity with less inflammatory side effects in vivo</p>
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