

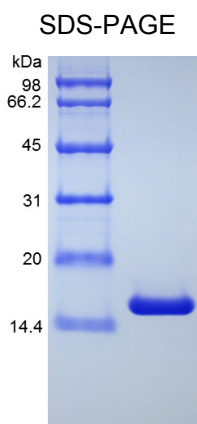
TNF

Recombinant Human Tumor Necrosis Factor-alpha Variant

Catalog No.	CSI20108A CSI20108B CSI20108C	Quantity:	10 µg 50 µg 1.0 mg
Alternate Names:	DIF, TNFA, TNFSF2, TNF-alpha, TNF-α, TNF		
Description:	<p>Recombinant Human TNF-alpha Variant is a single non-glycosylated polypeptide chain containing 151 amino acids.</p> <p>Compared with the wild-type, this TNF-alpha Variant has an amino acid sequence (a.a.) deletion from a.a. 1-7, and the following a.a. substitutes Arg8, Lys9, Arg10 and Phe157, which are proven to have more activity and with less inflammatory side effect <i>in vivo</i>.</p> <p>Background: The clinical use of the potent antitumor activity of TNF-alpha has been limited by the proinflammatory side effects including fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF-alpha mutants with low systemic toxicity has been an intense pharmacological interest. Human TNF-alpha, which binds to the mouse TNF-R55 but not to the mouse TNF-R75, exhibits retained anti-tumor activity and reduced systemic toxicity in mice compared with mouse TNF-alpha, which binds to both mouse 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 <i>in vitro</i>, and exhibited lower systemic toxicity <i>in vivo</i>.</p>		
Gene ID:	7124		
Source:	<i>E. coli</i>		
Molecular Weight:	Approximately 16.9 kDa		
Formulation:	Lyophilized from a 0.2 µm sterile filtered solution of PBS, pH 7.0.		
Purity:	>98% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	Less than 1 EU/µg of rHu TNF-α/TNFSF2, Variant as determined by LAL method.		
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cytotoxicity assay using murine L929 cells is less than 0.01 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁸ IU/mg in the presence of actinomycin D.		
Amino Acid Sequence:	MRKRKPVAVH VANPQAEQQL QWLNRRANAL LANGVELRDN QLVVPSEGLY LIYSQVLFGK QGCPSTHVLL THTISRIAVS YQTKVNLLSA IKSPCQRETP EGAEAKPWYE PIYLGGVFQL EKGDRLSAEI NRPDYLDFAE SGQVYFGIIA F		
Reconstitution:	Centrifuge vial prior to opening. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	This lyophilized preparation is stable at 2-4°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		



-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.



Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com