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32-1790: TNF a Mutant Recombinant Protein

Alternative Name : TNF-alpha,Tumor necrosis factor ligand superfamily member 2,TNF-a,Cachectin,DIF,TNFA,TNFSF2.

Description

Source : Escherichia Coli. Tumor Necrosis Factor-a Variant Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 151 amino acids and having a molecular mass of 16598 Dalton. The TNF-alpha Variant is purified by standard chromatographic techniques. The clinical use of the potent anti-tumor activity of TNF-a has been limited by the proinflammatory side effects including fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF-a mutants with low systemic toxicity has been an intense pharmacological interest. Human TNF-a, which binds to the murine TNF-R55 but not to the mouse TNF-R75, exhibits retained anti-tumor activity and reduced systemic toxicity in mice compared with murine TNF-a, which binds to both murine TNF receptors. Based on these results, many TNF- mutants that selectively bind to TNF-R55 have been designed. These mutants displayed cytotoxic activities on tumor cell lines in vitro, and exhibited lower systemic toxicity in vivo. Recombinant Human TNF-a Variant/Mutant compared with the wild-type, has an amino acid sequence deletion from a.a. 1-7, and the following a.a. substitutes Arg8, Lys9, Arg10 and Phe157 which is proven tohave more activity and with less inflammatory side effect in vivo.

Product Info

Amount :	50 µg
Purification :	Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.
Content :	The protein was lyophilized after extensive dialysis against 0.5x PBS pH -7.
Storage condition :	Lyophilized Tumor Necrosis Factor-a Variant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNF-a Variant should be stored at 4°C between 2-7 days and for future use below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.
Amino Acid :	MRKRKPVAHV VANPQAEGQL QWLNRRANAL LANGVELRDNQLVVPSEGLY LIYSQVLFKG QGCPSTHVLL THTISRIAVS YQTKVNLLSA IKSPCQRETP EGAEAKPWYE PIYLGGVFQL EKGDRLSAEI NRPDYLDFAE SGQVYFGIIAF.

Application Note

It is recommended to reconstitute the lyophilized Tumor Necrosis Factor-alpha Variant in sterile 18MÃ□Â©-cm H2O not less than 100Ã□Âµg/ml, which can then be further diluted to other aqueous solutions. The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is < 0.05ng/ml, corresponding to a Specific Activity of 20,000,000 units/mg.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.