Recombinant Human Tumor Necrosis Factor- alpha Variant (rhTNF-α variant)
Catalog Number: 103-01V

Description	The clinical use of the potent antitumor activity of TNF-α has been limited by the proinflammatory side effects including fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF-α mutants with low systemic toxicity has been an intense pharmacological interest. Human TNF-α, which binds to the murine TNF-R55 but not to the murine TNF-R75, exhibits retained antitumor activity and reduced systemic toxicity in mice compared with murine TNF-α, which binds to both murine TNF receptors. Based on these results, many TNF-α 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*.
Synonyms	DIF, TNFA, TNFSF2, TNF-alpha
AA Sequence	
Source	*Escherichia coli*
Molecular Weight	Approximately 16 kDa, a single non-glycosylated polypeptide chain containing 151 amino acids.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. Specific activity $\geq 1.0 \times 10^8$ units/mg, as determined by murine L929 cell cytolysis in the presence of Actinomycin D.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in PBS, pH 7.0.
Endotoxin	< 1EU/μg of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or *in vitro* diagnostic procedures.