

32-8282: Recombinant Human Tumor Necrosis Factor α /TNF α (C-6His)

Gene : TNF
Gene ID : 7124
Uniprot ID : P01375

Description

Source: E. coli.
MW :18.5kD.

Recombinant Human Tumor Necrosis Factor alpha is produced by our E.coli expression system and the target gene encoding Val77-Leu233 is expressed with a 6His tag at the C-terminus. Tumor Necrosis Factor- α (TNF- α) is secreted by macrophages, monocytes, neutrophils, T-cells, and NK-cells following stimulation by bacterial LPS. Cells expressing CD4 secrete TNF- α while cells that express CD8 secrete little or no TNF- α . Synthesis of TNF- α can be induced by many different stimuli including interferons, IL2, and GM-CSF. The clinical use of the potent anti-tumor activity of TNF- α has been limited by the proinflammatory side effects such as fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF- α mutants with low systemic toxicity has been of intense pharmacological interest. Human TNF- α 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- 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 have exhibited lower systemic toxicity in vivo. Recombinant Human TNF- α 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.

Product Info

Amount : 10 μ g / 50 μ g
Content : Lyophilized from a 0.2 μ m filtered solution of 20mM PB,150mM NaCl,pH7.4.
Storage condition : Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.
Amino Acid : MVRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGGQCPS
THVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEPYIYLGGVFQLEKGDRLSAEINRPDYLDFAES
GQVYFGIALLEHHHHHH

Application Note

Endotoxin : Less than 0.1 ng/ μ g (1 IEU/ μ g) as determined by LAL test.