Datasheet for ABIN7455630

TNF alpha Protein (His tag)

1 Image

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Overview

Quantity:	50 µg
Target:	TNF alpha
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TNF alpha protein is labelled with His tag.

Product Details

Purpose:	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.
Characteristics:	Extracellular Domain Protein
Purification:	Affinity purification
Purity:	Greater than 95 % as determined by reducing SDS-PAGE.

Target Details

Target:	TNF alpha
Alternative Name:	TNF (TNF alpha Products)
Background:	Tumor Necrosis Factor-a (TNF-a) is secreted by macrophages, monocytes, neutrophils, T-cells, and NK-cells following stimulation by bacterial LPS. Cells expressing CD4 secrete TNF-a while cells that express CD8 secrete little or no TNF-a. Synthesis of TNF-a can be induced by many

Target Details

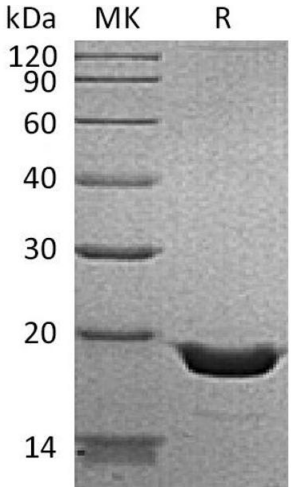
	different stimuli including interferons, IL2, and GM-CSF. The clinical use of the potent anti-tumor activity of TNF-a has been limited by the proinflammatory side effects such as fever, dose-limiting hypotension, hepatotoxicity, intravascular thrombosis, and hemorrhage. Designing clinically applicable TNF-a mutants with low systemic toxicity has been of intense pharmacological interest. Human TNF-a 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-a, which binds to both murine TNF receptors. Based on these results, many TNF-a 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-a High Active Mutant differs from the wild-type by amino acid subsitution 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.
Molecular Weight:	21.8 KDa
UniProt:	P01375
Pathways:	NF-kappaB Signaling, Apoptosis, Caspase Cascade in Apoptosis, TLR Signaling, Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Positive Regulation of Endopeptidase Activity, Hepatitis C, Protein targeting to Nucleus, Inflammasome

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 100 mM NaCl, pH 8.0.
Storage:	-20 °C,-80 °C
Storage Comment:	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Expiry Date:	12 months



SDS-PAGE

Image 1. Greater than 95 % as determined by reducing SDS-PAGE.

