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TNFR2 Human Fc

Tumor Necrosis Factor Receptor 2 Fusion Protein Human Recombinant
CYK0572

Product Overview

Name	TNFR2 Human Fc

Description

Tumor Necrosis Factor Receptor 2 Fusion Protein Human Recombinant

Accession (Primary)	P20333

Synonyms

Tumor necrosis factor receptor superfamily member 1B,Tumor necrosis factor receptor 2, TNF-R2, Tumor necrosis factor receptor type II, p75, p80 TNF-alpha receptor, CD120b antigen, Etanercept, TBPII, TNFBR, TNFR80, TNF-R75, p75TNFR, TNF-R-II.

Introduction

TNFR binds specifically to tumor necrosis factor (TNF) and blocks its interaction with cell surface TNF receptors. TNF is a naturally occurring cytokine that is involved in normal inflammatory and immune responses. It plays an important role in the inflammatory processes of rheumatoid arthritis (RA), polyarticular-course juvenile rheumatoid arthritis (JRA), and ankylosing spondylitis and the resulting joint pathology. In addition, TNF plays a role in the inflammatory process of plaque psoriasis. Elevated levels of TNF are found in involved tissues and fluids of patients with RA, psoriatic arthritis, ankylosing spondylitis (AS), and plaque psoriasis. Two distinct receptors for TNF (TNFRs), a 55 kilodalton protein (p55) and a 75 kilodalton protein (p75), exist naturally as monomeric molecules on cell surfaces and in soluble forms. Biological activity of TNF is dependent upon binding to either cell surface TNFR. Recombinant Human TNFR is a dimeric soluble form of the p75 TNF receptor that can bind to two TNF molecules. It inhibits the activity of TNF in vitro and has been shown to affect several animal models of inflammation, including murine collagen-induced arthritis. TNFR inhibits binding of both TNF? and TNF? (lymphotoxin alpha [LT?]) to cell surface TNFRs, rendering TNF biologically inactive. Cells expressing transmembrane TNF that bind to TNFR are not lysed in vitro in the presence or absence of complement. TNFR can also modulate biological responses that are induced or regulated by TNF, including expression of adhesion molecules responsible for leukocyte migration (i.e., E-selectin and to a lesser extent intercellular adhesion molecule-1 [ICAM-1]), serum levels of cytokines (e.g., IL-6), and serum levels of matrix metalloproteinase-3 (MMP-3 or stromelysin).

Source

Chinese Hamster Ovarian Cells (CHO).

Physical Appearance

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Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Each mg contains 1.6mg mannitol, 0.4 mg sucrose and 48 µg tromethamine.

Stability

Lyophilized Tumor Necrosis Factor Receptor although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNFR2 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.

Purity

Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (c) Analysis by SDS-PAGE.

Biological Activity

Potency is determined by its ability to neutralize TNF-alpha mediated growth inhibition of A375 cells, corresponding to a Specific Activity of 17,000,000 IU/mg.

Solubility

It is recommended to reconstitute the lyophilized TNFR2 in sterile 18M-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

TNFR2 Human Fc is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P20333)