

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Tumor Necrosis Factor Receptor Type 2

Catalog No.	Source	
228-11528	E.Coli	

Synonyms

Tumor necrosis factor receptor superfamily member 1B, Tumor necrosis factor receptor 2, Tumor necrosis factor receptor type II, p75, p80 TNF-alpha receptor, CD120b, Etanercept, TNF-R2, TNF-RII, TNFR-II, TNFRSF1B, TNFBR, TNFR2, TBPII, TNFR2, TNFR1B, TNFR80, TNF-R75, p75TNFR, TNF-R-II.

Introduction:

TNFR2 belongs to the TNF-receptor superfamily. TNFR2 is receptor with high affinity for TNFSF2/TNF-alpha and approximately 5-fold lower affinity for homotrimeric TNFSF1/lymphotoxin-alpha. TNFR2 mediates the majority of the metabolic effects of TNF-alpha. In addition, knockout studies in mice propose a role for TNFR2 in protecting neurons from apoptosis by stimulating antioxidative pathways. TNFR2 expression might have a significant role in the angiogenesis, tumor cell proliferation and metastasis of Invasive micropapillary carcinoma of the breast.

There are 2 types of soluble TNF receptors: sTNFR-I and sTNFR-II, which act to neutralize the biological activities of TNF alpha and TNF beta. The levels of these soluble receptors seem to increase as a result of shedding of the extracellular domains of the membrane bound receptors. High levels of soluble TNF receptors are found in the amniotic fluid of pregnant women. TNFR2 and TNFR1 form a heterocomplex which mediates the recruitment of 2 anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. IAPs' function in TNF-receptor signaling is unknown; nevertheless, c-IAP1 is believed to potentiate TNF-induced apoptosis by the ubiquitination and degradation of TNF-receptor-associated factor 2, which mediates anti-apoptotic signals. Oxidative stress promotes TNFR1 and TNFR2 self-interaction, ligand-independent and enhanced ligand-dependent TNF signaling. TNF-a, TNFR1 and TNFR2 have roles in cellular differentiation. TNFR1 and TNFR2 function in cell type-specific renal injury.

Description

TNFR2 Human Recombinant produced in E.Coli is a single, non-glycosylated, Polypeptide chain containing 184 amino acids fragment (23-206) having a molecular weight of 24.45kDa and fused with a 4.5kDa amino-terminal hexahistidine tag.

The TNFR2 is purified by proprietary chromatographic techniques.



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Physical Appearance

Sterile Filtered clear solution.

Formulation

TNFR2 protein is supplied in 20mM Tris HCl pH-8, 5mM EDTA and 50% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. **Please avoid freeze thaw cycles.**

Purity

Greater than 95.0% as determined by SDS-PAGE.