

Human IL27Ra / TCCR / WSX1 Protein (Fc Tag)

Catalog Number: 10489-H02H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CRL1; IL-27RA; IL27R; TCCR; WSX1; zcytor1; CRL1; IL-27R; Tccr; WSX-1; Wsx1; zcytor1

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Arg 514) of human IL27Ra (NP_004834.1) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA . Immobilized human IL27 at 20 µg/ml (100 µl/well) can bind human IL27Ra with a linear ranger of 0.064-1.6 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 33

Molecular Mass:

The recombinant human IL27Ra/Fc is a disulfide-linked homodimeric protein after removal of the signal peptide. The reduced monomer consists of 722 amino acids and has a predicted molecular mass of 79 kDa. As a result of glycosylation, rh IL27Ra/Fc monomer migrates as an approximately 105-115 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4, 8% trehalose, 8% mannitol

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

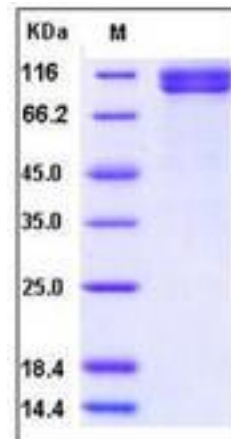
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The interleukin-27 receptor is a type I cytokine receptor for interleukin-27. It is a heterodimer composed of the interleukin 27 receptor, alpha subunit and glycoprotein 130. WSX-1/IL-27R, a class I cytokine receptor that is homologous to the $\beta 2$ chain of the IL-12R in both sequence and structure, is highly expressed by resting/naive CD4⁺ T cells and CD8⁺ T cells. WSX-1/IL-27R belongs to the IL-6/IL-12 family of cytokines and induced proliferation of naive CD4⁺ T cells and the generation of a Th1-type adaptive immune response. WSX-1/IL-27R functions as a receptor for IL27. IL-27 not only contributes to the development of an adaptive immune response through its action on CD4⁺ T cells, it also directly acts on cells of the innate immune system. WSX-1/IL-27R requires IL6ST/gp130 to mediate signal transduction in response to IL27. This signaling system acts through STAT3 and STAT1. It is involved in the regulation of Th1-type immune responses. IL-27R also appears to be involved in innate defense mechanisms. IL27RA is essential for transcriptional activation of STAT1 and for augmenting the induction of T-bet expression during initiation of Th1 cell differentiation.

References

1. Pflanz S, *et al.* (2004) WSX-1 and glycoprotein 130 constitute a signal-transducing receptor for IL-27. *J Immunol.* 172(4): 2225-31.
2. Yoshida H, *et al.* (2001) WSX-1 is required for the initiation of Th1 responses and resistance to L. major infection. *Immunity.* 215(4): 569-78.
3. Villarino A, *et al.* (2003) The IL-27R (WSX-1) is required to suppress T cell hyperactivity during infection. *Immunity.* 19(5): 645-55.

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