

# Mouse WSX-1 / IL-27R Protein (His Tag)

Catalog Number: 50096-M08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CRL1; IL-27R; Tccr; WSX-1; Wsx1; zcytor1

### Protein Construction:

A DNA sequence encoding the mouse IL27RA (AAC40121.1) (Gly29-Lys510) was expressed with a polyhistidine tag at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE.

### Endotoxin:

< 1.0 EU per µg 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:** Gly 29

### Molecular Mass:

The recombinant mouse IL27RA consists of 493 amino acids and predicts a molecular mass of 54.6 kDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

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:

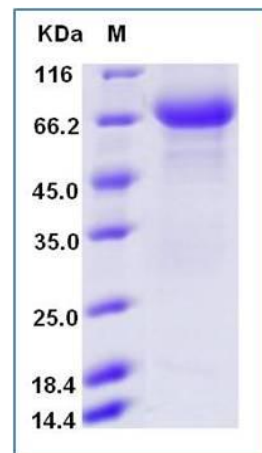
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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 13. 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<sup>+</sup> T cells and CD8<sup>+</sup> T cells. WSX-1/IL-27R belongs to the IL-6/IL-12 family of cytokines and induced proliferation of naive CD4<sup>+</sup> 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<sup>+</sup> T cells, it also directly acts on cells of the innate immune system. WSX-1/IL-27R requires IL6ST/gp13 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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