

# Human IL11RA / IL11R $\alpha$ Protein (His Tag)

Catalog Number: 10252-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CRSDA; hCG\_2011440; IL11RA; MGC2146

### Protein Construction:

A DNA sequence encoding the extracellular domain of human IL11R $\alpha$  (NP\_004503.1) (Met 1-Val 363) was expressed, with a fused polyhistidine tag at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per  $\mu$ g 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:** Ser 24

### Molecular Mass:

The recombinant human IL11R $\alpha$  comprises 351 amino acids and predicts a molecular mass of 38.6 kDa. As a result of glycosylation, rh IL11R $\alpha$  migrates as an approximately 47 kDa band in SDS-PAGE under reducing conditions.

### 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:

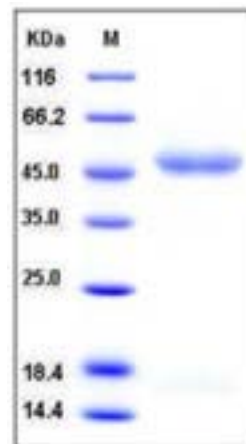
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin 11 receptor, alpha subunit (IL11RA/IL-11RA) is a subunit of the interleukin 11 receptor which is a member of the hematopoietic cytokine receptor family. IL11RA/IL-11RA is expressed in a number of cell lines, including the myelogenous leukemia cell line K562, the megakaryocytic leukemia cell line Mo7E, the erythroleukemia cell line TF1, and the osteosarcoma cell lines, MG-63 and Saos-2. It is also expressed in normal and malignant prostate epithelial cell lines. Expression levels are increased in prostate carcinoma. This particular receptor is very similar to ciliary neurotrophic factor, since both contain an extracellular region with a 2-domain structure composed of an immunoglobulin-like domain and a cytokine receptor-like domain. Alternative splicing has been observed at this locus, and three variants encoding two different isoforms have been identified. IL11RA/IL-11RA is a receptor for interleukin-11. The receptor systems for IL6, LIF, OSM, CNTF, IL11 and CT1 can utilize IL6ST for initiating signal transmission. Defects in IL11RA/IL-11RA are a cause of craniosynostosis and dental anomalies (CRSDA). CRSDA is a disorder characterized by craniosynostosis, maxillary hypoplasia, and dental anomalies, including malocclusion, delayed and ectopic tooth eruption, and/or supernumerary teeth. Some patients also display minor digit anomalies, such as syndactyly and/or clinodactyly.

## References

1. Van Leuven F, *et al.* (1996) Molecular cloning and characterization of the human interleukin-11 receptor alpha-chain gene, IL11RA, located on chromosome 9p13. *Genomics*. 31 (1): 65-70.
2. Yoshizaki A, *et al.* (2006) Expression of interleukin (IL)-11 and IL-11 receptor in human colorectal adenocarcinoma: IL-11 up-regulation of the invasive and proliferative activity of human colorectal carcinoma cells. *Int J Oncol*. 29 (4): 869-76.
3. Karube K, *et al.* (2006) Gene expression profile of cytokines and chemokines in microdissected primary Hodgkin and Reed-Sternberg (HRS) cells: high expression of interleukin-11 receptor alpha. *Ann Oncol*. 17 (1): 110-6.

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