

# Human IL1RL1 / DER4 Protein (Fc Tag)

Catalog Number: 10105-H02H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

DER4; FIT-1; IL1RL1; IL33R; IL-1R4; ST2; ST2L; ST2V; T1

### Protein Construction:

A DNA sequence encoding the human IL1RL1 isoform 2 (NP\_003847.2) (Met 1-Phe 328) was fused with the Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** ≥ 95 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

### Bio Activity:

**Measured by its binding ability in a functional ELISA**  
Immobilized human IL-33 at 10 µg/ml (100 µl/well) can bind human IL1RL1 / Fc Chimera with a linear range of 0.31-5 ng/ml.

### Endotoxin:

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

**Predicted N terminal:** Lys 19

### Molecular Mass:

The recombinant human IL1RL1/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 548 amino acids and has a calculated molecular mass of 61.72 kDa. As a result of glycosylation, the apparent molecular mass of rh IL1RL1/Fc monomer is approximately 85-95 kDa 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

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

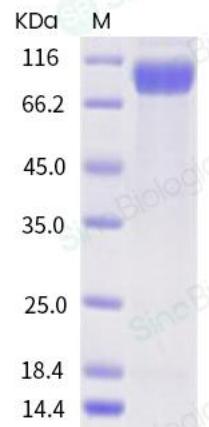
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

IL-1 receptor-like 1 (IL1RL1) is a membrane receptor involved in TH2 inflammatory responses and eosinophilia. It has previously been described that levels of the interleukin-1 like 1 (IL1RL1) protein can be used to diagnose cardiovascular disease and determine the prognosis for a patient with cardiovascular disease. The ligand for IL1RL1 has been described, and named IL-33. Mutants in IL1RL1 have been associated with blood eosinophil counts in a genome-wide association study and with asthma in family-based and case-control studies. As an important mediator involved in many immune and inflammatory responses, this cytokine has been implicated as a regulator of both the development and effector phases of type 2 helper T cell responses, and as a negative feedback modulator of macrophage pro-inflammatory function. IL33 is a specific ligand of ST2L and induces production of Th2 cytokines.

## References

Savenije OE, et al. (2011) Interleukin-1 receptor-like 1 polymorphisms are associated with serum IL1RL1-a, eosinophils, and asthma in childhood. J Allergy Clin Immunol. 127(3): 750-6.  
Li H, et al. (2000) The cloning and nucleotide sequence of human ST2L cDNA. Genomics. 67(3): 284-90.