

Human IL23R / IL23 Receptor Protein (ECD, Fc Tag)

Catalog Number: 13840-H02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL23R

Protein Construction:

A DNA sequence encoding the human IL23R (AAM44229.1) (Met1-Asp353) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

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

Bio Activity:

Measured by its binding ability in a functional ELISA.

1. Immobilized human IL23A-His+IL12B-His (Cat:CT012-H08H) at 10 µg/ml (100 µl/well) can bind human IL23R-Fc. The EC₅₀ of human IL23R-Fc is 0.28-0.66 µg/ml.

2. Immobilized mouse IL12Bh (m)+mIL23Ah (Cat:CT028-M08H) at 10 µg/ml (100 µl/well) can bind human IL23R-Fc. The EC₅₀ of human IL23R-Fc is 0.14-0.35 µg/ml.

Endotoxin:

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

Predicted N terminal: Gly 24

Molecular Mass:

The recombinant human IL23R /Fc is a disulfide-linked homodimer. The reduced monomer comprises 571 amino acids and has a predicted molecular mass of 64.9 kDa. The apparent molecular mass of the protein is approximately 92 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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.

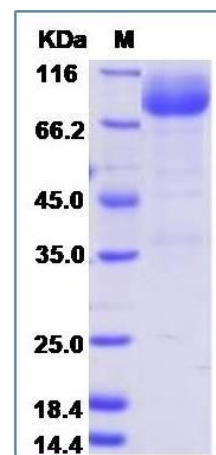
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IL23R, also known as the IL23 receptor, belongs to the type I cytokine receptor family, Type 2 subfamily. It contains 2 fibronectin type-III domains and is expressed by monocytes, Th1, Th0, NK, and dendritic cells. Isoform 1 is specifically expressed in NK cells. IL23R associates with IL12RB1 to form the interleukin-23 receptor. It binds IL23 and mediates T-cells, NK cells, and possibly certain macrophage/myeloid cell stimulation probably through activation of the Jak-Stat signaling cascade. IL23 functions in innate and adaptive immunity and may participate in acute response to infection in peripheral tissues. IL23 may be responsible for autoimmune inflammatory diseases and be important for tumorigenesis. Genetic variations in IL23R are associated with inflammatory bowel disease type 17 (IBD17). IBD17 is a chronic, relapsing inflammation of the gastrointestinal tract with a complex etiology. Genetic variations in IL23R also can cause susceptibility to psoriasis type 7.

References

1. Duerr RH, et al. (2006) A genome-wide association study identifies IL23R as an inflammatory bowel disease gene. Science. 314(5804):1461-3.
2. Cargill M, et al. (2007) A large-scale genetic association study confirms IL12B and leads to the identification of IL23R as psoriasis-risk genes. Am J Hum Genet. 80(2):273-90.
3. Dubinsky MC, et al. (2007) IL-23 receptor (IL-23R) gene protects against pediatric Crohn's disease. Inflamm Bowel Dis. 13(5):511-5.