

IL-23R Protein, Cynomolgus, Rhesus, Recombinant (hFc)

General Information

Synonyms:	interleukin 23 receptor
Protein Construction:	A DNA sequence encoding the cynomolgus / rhesus IL23R [(Identical to the rhesus IL23R (F6XR82)) (Met1-Asp353) was expressed with the Fc region of human IgG1 at the C-terminus. Cynomolgus and Rhesus IL23R sequences are identical. Predicted N terminal: Gly 24
Species:	Cynomolgus,Rhesus
Expression Host:	HEK293 Cells
Accession:	F6XR82
Molecular Weight:	64.9 kDa (predicted)

QC Testing

Biological Activity:	Measured by its binding ability in a functional ELISA.1. Immobilized human IL23A-His+IL12B-His at 10 µg/ml (100 µl/well) can bind Cynomolgus IL23R-Fc. The EC50 of Cynomolgus IL23R-Fc is 0.14-0.35 µg/ml.2. Immobilized mouse mIL12Bh (m)+mIL23Ah at 10 µg/ml (100 µl/well) can bind Cynomolgus IL23R-Fc . The EC50 of Cynomolgus IL23R-Fc is 0.05-0.11 µg/ml.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.
Shipping:	In general, Lyophilized powders are shipping with blue ice.

Protein Background

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.

Reference

- Duerr RH, et al. (2006) A genome-wide association study identifies IL23R as an inflammatory bowel disease gene. *Science*. 314(5804):1461-3.
- 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.
- Dubinsky MC, et al. (2007) IL-23 receptor (IL-23R) gene protects against pediatric Crohn's disease. *Inflamm Bowel Dis*. 13(5):511-5.
- Tremelling M, et al. (2007) IL23R variation determines susceptibility but not disease phenotype in inflammatory bowel disease. *Gastroenterology*. 132(5):1657-64.

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