Data Sheet (Cat.No.TMPY-05274)

TargetMol

IL-23R Protein, Human, Recombinant (His)

General Information

Synonyms:	interleukin 23 receptor
Protein Construction:	A DNA sequence encoding the human IL23R (AAM44229.1) (Met1-Asp353) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gly 24
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAM44229.1
Molecular Weight:	39.3 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE. > 85 % as determined by SEC-HPLC.
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:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry 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.