Data Sheet (Cat.No.TMPY-01236)

TargetMol

IL-10R beta/IL-10RB Protein, Human, Recombinant (His)

General Information

Synonyms:	CRF2-4;D21S66;CDW210B;interleukin 10 receptor, beta;interleukin 10 receptor, β;CRFB4;IL-10R2;D21S58
Protein Construction:	A DNA sequence encoding the extracellular domainof human IL10Rβ (NP_000619.3) (Met 1-Ser 220) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q08334
Molecular Weight:	25 kDa (predicted); 45-48 kDa (reducing condition, due to glycosylation)

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:	≥ 92 % as determined by SDS-PAGE. ≥ 90 % 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:

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.

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

Interleukin 10 receptor, beta subunit (IL10RB/IL-10RB) also known as Cytokine receptor family 2 member 4, Interleukin-10 receptor subunit 2, and cytokine receptor family II, member 4, is a subunit for the interleukin-10 receptor. IL10RB/IL-10RB belongs to the cytokine receptor family. It is an accessory chain essential for the active

interleukin 10 receptor complex. Coexpression of this and IL10RA proteins is required for IL10-induced signal transduction. Defects in IL10RB/IL-10RB are the cause of inflammatory bowel disease type 25 (IBD25). It is a chronic, relapsing inflammation of the gastrointestinal tract with a complex etiology. It is subdivided into Crohn's disease and ulcerative colitis phenotypes. Crohn's disease may affect any part of the gastrointestinal tract from the mouth to the anus, but most frequently it involves the terminal ileum and colon. Bowel inflammation is transmural and discontinuous; it may contain granulomas or be associated with intestinal or perianal fistulas. In contrast, in ulcerative colitis, the inflammation is continuous and limited to rectal and colonic mucosal layers; fistulas and granulomas are not observed. Both diseases include extraintestinal inflammation of the skin, eyes, or joints.

Reference

Josephson K, et al. (2001) Crystal structure of the IL-10/IL-10R1 complex reveals a shared receptor binding site. Immunity. 15 (1): 35-46.
Yoo KH, et al. (2011) Association of IL10, IL10RA, and IL10RB polymorphisms with benign prostate hyperplasia in Korean population. J Korean Med Sci. 26(5): 659-64.

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