Data Sheet (Cat.No.TMPY-01371)

TargetMol

IL-17RA Protein, Human, Recombinant (His)

General Information

Synonyms:	CANDF5;CD217;CDw217;IL-17RA;hIL-17R;IL17R;interleukin 17 receptor A
Protein Construction:	A DNA sequence encoding the extracellular domain of human IL17RA (NP_055154.3) (Met 1-Trp 320) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 33
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96F46-1
Molecular Weight:	35 kDa (predicted); 52-60 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human IL17A at 2 μg/ml (100 μl/well) can bind biotinylated human IL17RA with a linear range of 1.28-32 ng/ml. 2. Measured by its ability to inhibit IL-17-induced IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. The ED50 for this effect is 0.2-1.2μg/mL in the presence of 5 ng/mL recombinant human IL-17.
Purity:	> 97 % 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:

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

Interleukin-17 receptor (IL-17R), also known as Interleukin-17 receptor A (IL-17RA) and CD217 antigen (CD217), is a cytokine receptor that binds interleukin 17. IL-17R/IL-17RA (CD217) is a proinflammatory cytokine secreted by activated T-lymphocytes. It is a potent inducer of the maturation of CD34-positive hematopoietic precursors into neutrophils. IL-17R/IL-17RA (CD217) is a ubiquitous type I membrane glycoprotein that binds with low affinity to interleukin 17A. Interleukin 17A and its receptor IL-17RA play a pathogenic role in many inflammatory and autoimmune diseases such as rheumatoid arthritis. Like other cytokine receptors, this receptor likely has a multimeric structure. Defects in IL-17R/IL-17RA (CD217) are the cause of familial candidiasis type 5 (CANDF5). CANDF5 is a rare disorder with altered immune responses and impaired clearance of fungal infections, selective against Candida. It is characterized by persistent and/or recurrent infections of the skin, nails, and mucous membranes caused by organisms of the genus Candida, mainly Candida albicans.

Reference

Gaffen SL. (2009) Structure and signalling in the IL-17 receptor family. Nat Rev Immunol. 9 (8): 556-67.
Johansen C, et al.. (2009) Characterization of the interleukin-17 isoforms and receptors in lesional psoriatic skin. Br J Dermatol. 160 (2): 319-24.
Yao Z, et al.. (1997) Molecular characterization of the human interleukin (IL)-17 receptor. Cytokine 9 (11): 794-800.

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