

## IL-17RA Protein, Human, Recombinant (aa 1-320, His & Avi), Biotinylated

### General Information

Synonyms:	CANDF5; CDw217; interleukin 17 receptor A; hIL-17R; IL17R; IL-17RA; CD217
Protein Construction:	A DNA sequence encoding the human IL17RA (NP_055154.3)(Met1-Trp320) was expressed with a C-terminal polyhistidine tag followed by an AVI tag. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Leu 33
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96F46-1
Molecular Weight:	36.71 kDa (predicted); 59.88 kDa (reducing conditions)

### QC Testing

Biological Activity:	Immobilized Human IL17 at 2 µg/mL (100 µL/well) can bind Human IL17RA, Biotinylated, the EC50 of Human IL17RA, Biotinylated is 10-70 ng/mL.
Purity:	> 95 % 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. <small>Actual storage temperature shall be subject to the COA.</small>
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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