

PRODUCT INFORMATION



Interleukin-17RA/CD217 Extracellular Domain (human, recombinant) Item No. 34632

Overview and Properties

Synonyms: CDw217, IL-17 Receptor A, Interleukin-17 Receptor A
Source: Active recombinant C-terminal human IgG1 Fc-AVI-tagged IL-17RA expressed in HEK293 cells
Amino Acids: 33-320
Uniprot No.: Q96F46
Molecular Weight: 62 kDa
Storage: -80°C (as supplied)
Stability: ≥6 months
Purity: *batch specific* (≥80% estimated by SDS-PAGE)
Supplied in: 8 mM phosphate buffer, pH 7.4, with 110 mM sodium chloride, 2.2 mM potassium chloride, and 20% glycerol

Protein

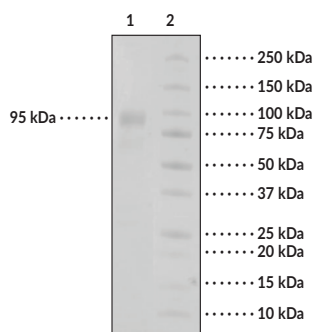
Concentration: *batch specific* mg/ml

Activity: *batch specific* U/ml

Bioactivity: See figures for details

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

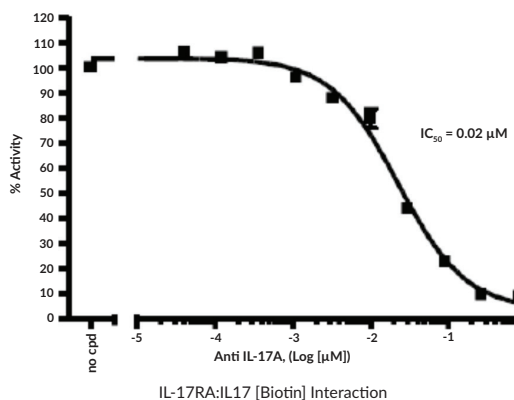
Images



Lane 1: Interleukin-17RA/CD217 Extracellular Domain
Lane 2: MW Markers

SDS-PAGE Analysis of Interleukin-17RA/CD217 Extracellular Domain

Representative gel image shown; actual purity may vary between each batch.



IL-17RA:IL17 [Biotin] Interaction

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

IL-17 receptor A (IL-17RA), also known as CD217, is a cytokine receptor that has roles in immunity and inflammation.¹ It is composed of two extracellular fibronectin III-like domains that form the ligand-binding and receptor-dimerization domain, a transmembrane domain, an SEF/IL-17R (SEFIR) domain, a TIR-like loop (TILL), and a C/EBP β activation domain (CBAD). IL-17RA is ubiquitously expressed and localizes to the plasma membrane.² It also exists as a soluble form that results from alternative splicing of *IL17RA* pre-mRNA. IL-17RA is involved in autoimmunity, neutrophil recruitment, and host defense.¹ It forms a complex with IL-17RB, IL-17RC, or IL-17RE, each of which have varying affinities for the homodimeric ligands IL-17A, IL-17E, and IL-17F, and the IL-17A/IL-17F heterodimer.^{1,3} Knockout of *Il17ra* increases mortality in mice infected with *T. cruzi*.⁴ In contrast, *Il17ra*^{-/-} mice are protected against the development of collagen-induced arthritis.⁵ Mutations in *IL17RA* have been found in patients with chronic mucocutaneous candidiasis, a disease characterized by recurrent or persistent commensal *Candida* infections.⁶ Cayman's Interleukin-17RA/CD217 Extracellular Domain (human, recombinant) protein can be used for binding assays. This protein is a disulfide-linked homodimer. The reduced monomer, composed of IL-17RA fused to AVI-tagged IgG1 Fc at its C-terminus, has a calculated molecular weight of 62 kDa. As a result of glycosylation, the monomer migrates at approximately 95 kDa by SDS-PAGE under reducing conditions.

References

1. Gaffen, S.L. Structure and signalling in the IL-17 receptor family. *Nat. Rev. Immunol.* **9(8)**, 556-567 (2009).
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3. Vidal, S., Puig, L., Carrascosa-Carrillo, J.-M., *et al.* From messengers to receptors in psoriasis: The role of IL-17RA in disease and treatment. *Int. J. Mol. Sci.* **22(13)**, 6740 (2021).
4. Tosello Boari, J., Amezcua Vesely, M.C., Bermejo, D.A., *et al.* IL-17RA signaling reduces inflammation and mortality during *Trypanosoma cruzi* infection by recruiting suppressive IL-10-producing neutrophils. *PLoS Pathog.* **8(4)**, e1002658 (2012).
5. Corneth, O.B.J., Mus, A.M.C., Asmawidjaja, P.S., *et al.* Absence of interleukin-17 receptor a signaling prevents autoimmune inflammation of the joint and leads to a Th2-like phenotype in collagen-induced arthritis. *Arthritis Rheumatol.* **66(2)**, 340-349 (2014).
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