Data Sheet (Cat.No.TMAH-00613)

TargetMol

Anti-IL-17A Antibody (9Y689)

Product Details

Ig Type:	Human IgG4(S228P)
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9Y689
Purification:	Affinity-chromatography

Applications

Verified Activity:	The Binding Activity of IL17A with anti-IL17A antibody Activity: Measured by its binding ability in a functional ELISA. Immobilized Human IL17A at 2 μg/ml can bind Anti-IL17A recombinant antibody, the EC50 is 1.818-2.170 ng/mL.
Application:	ELISA

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human IL17A Protein
Antigen Species:	Human
Gene ID:	3605
Uniprot ID:	Q16552
Synonyms:	CTLA-8;IL-17;interleukin 17A;IL17;CTLA8;IL-17A
Biology Area:	Immunology

Research Background

Effector cytokine of innate and adaptive immune system involved in antimicrobial host defense and maintenance of tissue integrity. Signals via IL17RA-IL17RC heterodimeric receptor complex, triggering homotypic interaction of IL17RA and IL17RC chains with TRAF3IP2 adapter. This leads to downstream TRAF6-mediated activation of NF-kappa-B and MAPkinase pathways ultimately resulting in transcriptional activation of cytokines, chemokines, antimicrobial peptides and matrix metalloproteinases, with potential strong immune inflammation. Plays an important role in connecting T cell-mediated adaptive immunity and acute inflammatory response to destroy extracellular bacteria and fungi. As a signature effector cytokine of T-helper 17 cells (Th17), primarily induces neutrophil activation and recruitment at infection and inflammatory sites. In airway epithelium, mediates neutrophil chemotaxis via induction of CXCL1 and CXCL5 chemokines. In secondary lymphoid organs, contributes to germinal center formation by regulating the chemotactic response of B cells to CXCL12 and CXCL13, enhancing retention of B cells within the germinal centers, B cell somatic hypermutation rate and selection toward plasma cells. Effector cytokine of a subset of gamma-delta T cells that functions as part of an inflammatory circuit downstream IL1B, TLR2 and IL23A-IL12B to promote neutrophil recruitment for efficient bacterial clearance. Effector cytokine of innate immune cells including invariant natural killer cell (iNKT) and group 3 innate lymphoid cells that mediate initial

neutrophilic inflammation. Involved in the maintenance of the integrity of epithelial barriers during homeostasis and pathogen infection. Upon acute injury, has a direct role in epithelial barrier formation by regulating OCLN localization and tight junction biogenesis. As part of the mucosal immune response induced by commensal bacteria, enhances host's ability to resist pathogenic bacterial and fungal infections by promoting neutrophil recruitment and antimicrobial peptides release. In synergy with IL17F, mediates the production of antimicrobial beta-defensins DEFB1, DEFB103A, and DEFB104A by mucosal epithelial cells, limiting the entry of microbes through the epithelial barriers. Involved in antiviral host defense through various mechanisms. Enhances immunity against West Nile virus by promoting T cell cytotoxicity. May play a beneficial role in influenza A virus (H5N1) infection by enhancing B cell recruitment and immune response in the lung. Contributes to influenza A virus (H1N1) clearance by driving the differentiation of B-1a B cells, providing for production of virus-specific IgM antibodies at first line of host defense.

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