

Mouse IL-17A ELISA Kit | IL-17A elisa kit

Mouse IL-17A ELISA KIT

CATALOG #
AAA309911

REACTIVITY
Mouse

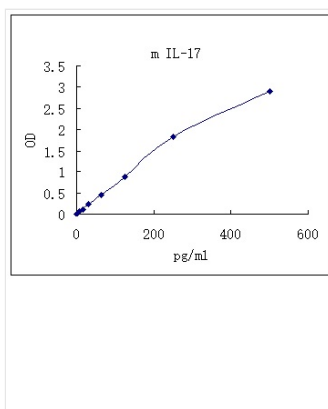
PRODUCT SYNONYMS

IL-17A; Mouse IL-17A ELISA KIT; Mouse IL-17A; IL-17A elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	Natural and recombinant Mouse IL-17A Ligand
Assay Type	Solid Phase Sandwich ELISA
Samples	Cell culture supernatant, serum, plasma (EDTA, citrate, heparin)
Detection Range	7.8-500 pg/mL
Sensitivity	4pg/mL
Assay Time	3 hour
Sample Volume	20 uL
Detection Method	Colorimetric
Preparation and Storage	Store at 4 degree C

IMAGES



Standard Curve (Sample)

Representative standard curve for IL-17 ELISA. IL-17 was diluted in serial two-fold steps in Sample Diluent.

ADDITIONAL INFORMATION

Related Product Information for IL-17A elisa kit

Mouse Interleukin 17 (IL-17; also known as IL-17A and CTLA-8) is a 21 kDa, variably glycosylated polypeptide that belongs to the IL-17 family of cytokines containing a cysteine-knot fold (1-3). Its sequence was originally isolated from an activated hybridoma created from the fusion of a mouse cytotoxic and rat T cell lymphoma cell line (2-5). It is synthesized as a 158 amino acid (aa) precursor that contains a 25 aa signal sequence and a 133 aa mature segment (5). In both mouse and human, there is one conserved N-linked glycosylation site that likely contributes 5 kDa to its native molecular weight. IL-17A forms both a 35-38 kDa homodimer, and a 45-48 kDa heterodimer with IL-17F (6, 7). Mature mouse IL-17A is 61% and 89% aa identical to human and rat IL-17A, respectively (4, 5, 8). While rodent and human mature sequences show modest aa sequence identity, human IL-17 is active on both mouse and rat cells (5, 9). Cells known to produce IL-17 are the CD4⁺ Th17 T cells, Paneth cells, GR1⁺CD11b⁺ myeloid suppressor cells, CD27⁺g δ T cells, CD1⁺NK1.1⁺ iNKT cells and CD3⁺CD4⁺ LTi-like cells (3, 5, 6, 10-12). A high affinity receptor for mouse IL-17 has been reported, and appears to be a heteromultimer of IL-17RA and IL-17RC, likely in a 2:1 ratio (1). IL-17RA is a 130 kDa, type I transmembrane glycoprotein that bears no resemblance to members of the cytokine, TNF or immunoglobulin receptor superfamily (2, 10, 13). IL-17RC is also a type I transmembrane protein, approximately 90-95 kDa in size, that shares less than 30% aa identity with IL-17RA (14, 15). Both receptors are needed for IL-17A and IL-17A/F activity. The two receptors appear to form a functional association following ligand binding to IL-17RA (1, 16). IL-17 is best known for its participation in the recruitment and survival of neutrophils (3, 10, 17, 18). Its induction was initially described to be the result of antigen stimulation of dendritic cells, resulting in IL-23 secretion. In a TCR-independent event, IL-23 induces T cell production of IL-17 (3). Once secreted, IL-17 in the bone marrow would seem to induce stromal/fibroblast expression of both G-CSF and SCF (membrane form), an effect that increases neutrophil differentiation and activation. IL-17 may complement this by directly blocking neutrophil apoptosis, promoting greater circulating neutrophil numbers (17). In the tissues, IL-17 seems to promote neutrophil extravasation, principally through its effects on macrophages and endothelial cells (EC). On macrophages, IL-17 induces TNF- α , IL-1 β and IL-6 production (19). TNF- α and IL-1 β then act on local ECs to induce G-CSF secretion, an effect that is potentiated by IL-17 (20). IL-17 further contributes to neutrophil influx by inducing EC CXC chemokine release and NO production, which may increase vascular permeability (3, 9). IL-17 effects are not limited to neutrophils. In synovial joints, IL-17 upregulates RANKL expression on osteoblasts. This provides a stimulus for osteoclast formation and subsequent bone resorption (18).

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504651
NCBI GeneID	3605
NCBI Accession #	NP_002181.1
NCBI GenBank Nucleotide #	NM_002190.2
UniProt Accession #	Q16552 ; Q5T2P0
Molecular Weight	17,504 Da
NCBI Official Full Name	interleukin-17A
NCBI Official Synonym Full Names	interleukin 17A
NCBI Official Symbol	IL17A
NCBI Official Synonym Symbols	IL17; CTLA8; IL-17; CTLA-8; IL-17A
NCBI Protein Information	interleukin-17A
UniProt Protein Name	Interleukin-17A
UniProt Gene Name	IL17A
UniProt Synonym Gene Names	CTLA8; IL17; IL-17; IL-17A; CTLA-8

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.