

## PRODUCT DATA SHEET

### Human IL-17/17A ELISA Kit

#### Description

The interleukin (IL)-17 family comprises six members: IL-17A, IL-17B, IL-17C, IL-17D, IL-17E, and IL-17F, while IL-17A is the most studied subtype. Human IL-17A is a 15-20 kDa glycosylated polypeptide, a proinflammatory cytokine primarily produced by T helper 17 (Th17) cells, alongside  $\gamma\delta$  T cells, natural killer T cells, and innate lymphoid cells. IL-17A forms both disulfide-linked homodimers (32-38 kDa) and covalent heterodimers with IL-17F (40-45 kDa). While most secreted IL-17A exists as the IL-17A:F heterodimer, the IL-17A:A homodimer is more bioactive. IL-17 plays a critical role in immune responses against extracellular pathogens and contributes to the pathogenesis of various autoimmune and inflammatory diseases.

IL-17A has attracted significant attention in scientific research due to its regulatory role in immune and inflammatory processes. IL-17 induces neutrophil recruitment and stimulates the production of pro-inflammatory cytokines like IL-6, IL-8, TNF- $\alpha$ , and IL-1 $\beta$ . Elevated IL-17A levels are associated with several chronic inflammatory diseases in humans, including rheumatoid arthritis, asthma, acute coronary syndrome, multiple sclerosis, systemic lupus erythematosus, and allograft rejection.

#### Contents

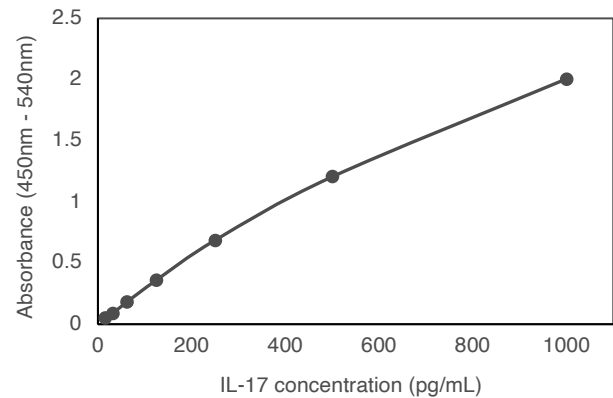
Pre-coated strip microplate (8X12)	96 wells
10X Wash Buffer	50 mL
1X Assay Diluent	50 mL
1X Detection Diluent	50 mL
Biotinylated anti-Human IL-17	1 vial
IL-17 Standard	1 vial
200X HRP-Streptavidin Conjugate	150 $\mu$ L
1X One-step TMB Substrate	12 mL
1X Stop Solution	8 mL
Adhesive Plate Covers	1 count

#### Features

The Human IL-17 solid-phase sandwich ELISA is designed to quantify the target analyte “sandwiched” between a matched antibody pair. The microplate wells supplied with the kit are pre-coated with a target-specific antibody. Upon adding the samples, standards, or controls, the target is captured by the immobilized antibody and subsequently binds to the next added detector antibody.

A secondary enzyme conjugate binds the target attached detector antibody and a substrate solution reacts with the

enzyme-antibody-target complex to develop a measurable colored end-product which correlates to the concentration of target analyte present in the original sample. See manual for more information on the assay procedure.



#### Characteristics

Protein name	IL-17
Alternate names	Interleukin-17A, IL-17A, CTLA-8; CTLA8 cytotoxic T-lymphocyte-associated serine esterase 8; IL-17A cytotoxic T-lymphocyte-associated protein 8; IL-17CTLA-8
Species reactivity	Human
Assay format	Solid-phase Sandwich ELISA (quantitative)
Sample type	Serum, Plasma, Cell culture supernatant
Sample volume	100 $\mu$ L
Assay length	4.5 hrs
Analytical sensitivity	<9 pg/mL
Assay range	15.6 – 1000 pg/mL
Intra-assay CV	<4%
Inter-assay CV	<11%
Recovery (%)	Serum: 98.2 Plasma: 86.3 Cell culture media: 92.2
Detection & Instrument	Colorimetric, Microplate Reader
UniProt ID	Q16552

#### Validation

Each manufactured lot of this ELISA kit is quality tested for criteria such as sensitivity, specificity, precision, and lot-to-lot consistency. See manual for more information on validation.

#### Storage

This product should be stored at 2-8°C. Do not freeze. If stored as specified, the ELISA Plates and reagents are stable for at least 12 months.

Canada, Europe, Asia, Pacific and Africa

919 Fraser Drive, Unit 11, Burlington, ON Canada L7L 4X8  
Tel: 866-344-3954 Fax: 289-204-9100  
www.cytodiagnosics.com

United States, Mexico, South and Central America

5867 South Garnett Road, Tulsa, Oklahoma 74146 USA  
Tel: 866-344-3954 Fax: 289-204-9100  
www.cytodiagnosics-us.com

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For Research Use Only. Not for use in diagnostic procedures.  
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[www.cytodiagnostics.com](http://www.cytodiagnostics.com) for information regarding hazards  
and safe handling procedures.