



#12330 Store at +4C

SignalKine™ Human IL-17A Chemiluminescent Sandwich ELISA Kit

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Species Cross Reactivity: H
UniProt ID: #Q16552
Entrez-Gene ID: #3605

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For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Color	Storage Temp
ELISA Wash Buffer (20X)	9801	25 ml	Colorless	+4C
Luminol/Enhancer Solution	84850	3 ml	Colorless	RT
Stable Peroxide Buffer	42552	3 ml	Colorless	RT
Sealing Tape	54503	2 ea		+4C

Description

SignalKine™ Human IL-17A Chemiluminescent Sandwich ELISA Kit from Cell Signaling Technology (CST) is a solid phase sandwich enzyme-linked immunosorbent assay (ELISA) that detects human IL-17A (hIL-17A) in multiple matrices. Unknown samples being tested for hIL-17A and hIL-17A standards are added to low volume microwells, where the hIL-17A is captured by the coated hIL-17A Rabbit mAb. Following a washing step, a biotinylated hIL-17A Detection Rabbit mAb is added to detect the captured hIL-17A. HRP-linked Streptavidin is then used for detection of the biotinylated hIL-17A Detection Rabbit mAb. A chemiluminescent reagent is added for signal development. The magnitude of light emission, measured in relative light units (RLU) is proportional to the quantity of human hIL-17A in the sample.

SignalKine™ Human IL-17A Chemiluminescent Sandwich ELISA Kit detects hIL-17A in multiple matrices that can be quantified by generating a standard curve with the recombinant hIL-17A protein standard provided. The hIL-17A standard range is from 2 to 1500 pg/ml. Samples containing higher levels of hIL-17A can be diluted to fit into the standard range.

Specificity/Sensitivity

Matrices Tested: This ELISA has been validated in cell culture supernatants, plasma (citrate), plasma (EDTA), plasma (heparin), and serum.

Background

IL-17A is a cysteine-linked homodimeric pro-inflammatory cytokine produced by Th17 cells, a distinct CD4⁺ T cell lineage (1,2). IL-17A stimulates the production of the pro-inflammatory cytokines IL-1 β , TNF- α , and IL-6. IL-17A also induces production of the neutrophil chemoattractants IL-8, CXCL1, and CXCL6, thereby bridging adaptive and innate immunity (1,2). IL-17A is intimately involved in mucosal immunity against bacterial infections (1,3) and has a putative role in some autoimmune disorders (1,4). IL-17A effects appear to be exerted primarily through binding to the IL-17RA (5). IL-17A binding induces production of cytokines, chemokines, and other proteins through activation of the Erk1/2 MAP kinase, PI3K/Akt, p38, and NF- κ B pathways (3,4,6).

Background References

1. Kolls, J.K. and Lindén, A. (2004) *Immunity* 21, 467-76.
2. Liang, S.C. et al. (2006) *J Exp Med* 203, 2271-9.
3. Dubin, P.J. and Kolls, J.K. (2008) *Immunol Rev* 226, 160-71.
4. Zrioual, S. et al. (2009) *J Immunol* 182, 3112-20.
5. Wright, J.F. et al. (2008) *J Immunol* 181, 2799-805.
6. Rahman, M.S. et al. (2006) *J Immunol* 177, 4064-71.

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Revision 1

#12330

SignalKine™ Human IL-17A Chemiluminescent Sandwich ELISA Kit

