

Human IL-17A Neutralizing (D13C2) Rabbit mAb

✓ 100 µg



Cell Signaling
TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com
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info@cellsignaling.com
Web ■ www.cellsignaling.com

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For Research Use Only. Not For Use In Diagnostic Procedures.

Species Cross-Reactivity: H

Description: Neutralizing antibodies can be used to inhibit normal biological function through their binding to biological molecules. These reagents can be used to determine the effects that a particular molecule has in biological systems. Human IL-17A Neutralizing (D13C2) Rabbit mAb has been shown to neutralize the production of IL-6 from human dermal fibroblast cells *in vitro* with an ND_{50} in the range of 8-50 ng/ml.

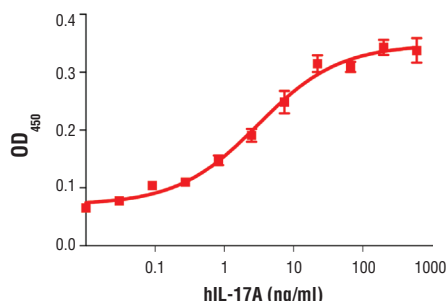
Background: IL-17A is a cysteine-linked homodimeric pro-inflammatory cytokine produced by Th_{17} cells, a distinct CD4⁺ T cell lineage (1,2). IL-17A stimulates the production of the pro-inflammatory cytokines IL-1 β , TNF- α , and IL-6. IL-17A also induces production of the neutrophil chemoattractants 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).

Endotoxin: Less than 0.1 EU/µg of antibody.

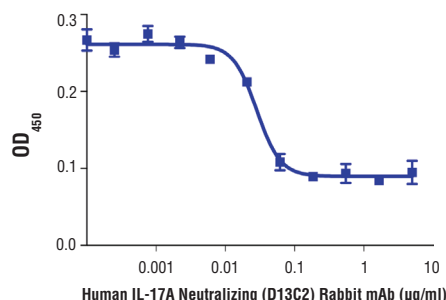
Specificity/Sensitivity: Human IL-17A Neutralizing (D13C2) Rabbit mAb binds to human IL-17A (hIL-17A) and neutralizes its ability to induce IL-6 production in human dermal fibroblast cells. This antibody shows 50% cross-reactivity with human IL-17A/F. This antibody does not cross-react with mouse IL-17A, human IL-25 or mouse IL-25.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant human IL-17A protein.

Notes on Use: CST recommends incubation of the neutralizing antibody with the intended target for 1 hr at 37°C before addition to the experiment at an optimal concentration determined by the user



The production of IL-6 by human dermal fibroblasts cultured with increasing concentrations of Human IL-17A (hIL-17A) #8928 was assessed. Media from cells incubated with IL-17A for 48 hours was collected and assayed for IL-6 by ELISA and the OD_{450} was determined.



The ability of Human IL-17A Neutralizing (D13C2) Rabbit mAb to inhibit IL-17A-induced IL-6 production was assessed. Human dermal fibroblasts were incubated with increasing concentrations of antibody in the presence of Human Interleukin-17A (hIL-17A) #8928 (15 ng/ml). After 48 hr, culture supernatants were harvested and assayed for IL-6 by ELISA and the OD_{450} was determined.

Entrez-Gene ID #3605
Swiss-Prot Acc. #Q16552

Formulation: Lyophilized from a 0.2 µm filtered solution in 10 mM HEPES with trehalose.

Reconstitution: Add sterile 10 mM HEPES pH 7.0 to a final concentration of greater than 50 µg/ml. Solubilize for 20 min at room temperature with occasional gentle vortexing.

Storage: Store lyophilized material at -20°C. After reconstitution, recommended storage at 4°C for 1 month or -20°C for 6 months. Avoid repeated freeze/thawing.

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.