# IL-17RA (D1Y4C) Rabbit mAb

100 μl(10 western blots)

#12661 Store at -20°C

New 07/13

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype	
W Endogenous	н	120-170 kDa	Rabbit IgG**	

Background: The IL-17 family of cytokines consists of IL-17A-F and their receptors include IL-17RA-RE (1). IL-17 cytokines are produced by a variety of cell types including the Th17 subset of CD4+ T cells, as well as subsets of  $\gamma\delta$ T cells, NK cells, and NKT cells (2). IL-17A and IL-17F, the most well-studied of the IL-17 cytokines, contribute to fungal and bacterial immunity by inducing expression of proinflammatory cytokines, chemokines, and antimicrobial peptides (2). In addition, IL-17A contributes to the pathogenesis of several autoimmune diseases (3). IL-17E promotes Th2 cell responses (4). The roles of IL-17B, IL-17C, and IL-17D are less clear, however these family members also appear to have the capacity to induce proinflammatory cytokines (1,5,6). IL-17 receptors have an extracellular domain, a transmembrane domain, and a SEFIR domain. They are believed to signal as homodimers, heterodimers. or multimers through their SEFIR domain by recruiting the SEFIR domain-containing adaptor Act1 (7). Unlike most cytokines that signal through Jak/STAT pathways, IL-17 signaling results in NF-KB activation (8).

IL-17RA associates with IL-17RC to mediate signaling by homodimers and heterodimers of IL-17A and IL-17F (9,10). IL-17RA is broadly expressed with highest expression in hematopoietic cells (11).

**Specificity/Sensitivity:** IL-17RA (D1Y4C) recognizes endogenous levels of total IL-17RA protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a recombinant fragment of the human IL-17RA extracellular domain.



Western blot analysis of extracts from various cell lines using IL-17RA (D1Y4C) Rabbit mAb.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with a construct expressing Myc/ DDK-tagged full-length human IL-17RA (hIL-17RA-Myc/DDK; +), using IL-17RA (D1Y4C) Rabbit mAb.



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#### Entrez Gene ID #23765 UniProt ID #Q96F46

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}$ C. *Do not aliquot the antibody.* 

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

## **Recommended Antibody Dilutions:**

Western blotting

1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

## Please visit www.cellsignal.com for a complete listing of recommended complementary products.

### **Background References:**

(1) Gaffen, S.L. (2009) Nat Rev Immunol 9, 556-67.

(2) Iwakura, Y. et al. (2011) Immunity 34, 149-62.

(3) Hu, Y. et al. (2011) Ann NY Acad Sci 1217, 60-76.

(4) Fort, M.M. et al. (2001) Immunity 15, 985-95.

- (5) Yamaguchi, Y. et al. (2007) *J Immunol* 179, 7128-36.
- (6) Li, H. et al. (2000) Proc Natl Acad Sci USA 97, 773-8.
- (7) Chang, S.H. et al. (2006) J Biol Chem 281, 35603-7.
- (8) Shalom-Barak, T. et al. (1998) J Biol Chem 273, 27467-73.
- (9) Toy, D. et al. (2006) *J Immunol* 177, 36-9.
- (10) Wright, J.F. et al. (2008) J Immunol 181, 2799-805.
- (11) Yao, Z. et al. (1995) *Immunity* 3, 811-21.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

 Applications Key:
 W—Western
 IP—Immunoprecipitation
 IHC—Immunohistochemistry
 ChIP—Chromatin Immunoprecipitation
 IF—Immunofluorescence
 F—Flow cytometry
 E-P—ELISA-Peptide

 Species Cross-Reactivity Key:
 H—human
 M—mouse
 R—rat
 Hm—hamster
 Mk—monkey
 Mi—mink
 C—chicken
 Dm—D. melanogaster
 X—xenopus
 Z—zebrafish
 B—bovine

 Dg—dog
 Pg—pig
 Sc—S. cerevisiae
 Ce—C. elegans
 Hr—horse
 All—all species expected
 Species enclosed in parentheses are predicted to react based on 100% homology.