Store at -20°C

IKKγ (DA10-12) Mouse mAb

#2695

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rev. 12/29/15

Entrez-Gene ID #8517
UniProt ID #Q9Y6K9

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

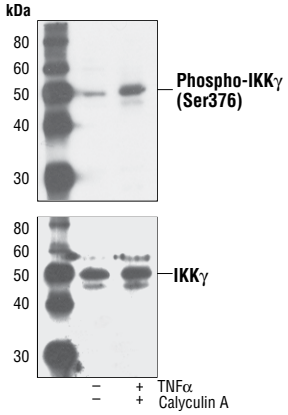
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W Endogenous	H, R	50 kDa	Mouse IgG1**

Background: The NF-κB/Rel transcription factors are present in the cytosol in an inactive state, complexed with the inhibitory IκB proteins (1-3). Most agents that activate NF-κB do so through a common pathway based on phosphorylation-induced, proteasome-mediated degradation of IκB (3-7). The key regulatory step in this pathway involves activation of a high molecular weight IκB kinase (IKK) complex whose catalysis is generally carried out by three tightly associated IKK subunits. IKKα and IKKβ serve as the catalytic subunits of the kinase and IKKγ serves as the regulatory subunit (8,9). Activation of IKK depends upon phosphorylation at Ser177 and Ser181 in the activation loop of IKKβ (Ser176 and Ser180 in IKKα), which causes conformational changes, resulting in kinase activation (10-13).

Activation of the NF-κB pathway by the T-cell lymphotrophic virus Tax protein or by TNF-α treatment leads to IKKβ-dependent phosphorylation of human IKKγ, primarily at Ser376 (14). In mice, mutation of the orthologous residue (Ser369) to alanine leads to enhanced IKKγ-mediated stimlulation of IKKβ kinase activity (15).

Specificity/Sensitivity: IKKγ (DA10-12) Mouse mAb detects endogenous levels of total IKKγ protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with full length human GST-IKKγ protein.



Western blot analysis of extracts from HeLa cells, untreated or treated with TNF-α (20 ng/ml) and calyculin A #9902 (50 nM), using Phospho-IKKγ (Ser376) Antibody #2689 (top) or IKKγ (DA10-12) Mouse mAb (bottom).

Background References:

(1) Baeuerle, P.A. and Baltimore, D. (1988) *Science* 242, 540-6.

(2) Beg, A.A. and Baldwin, A.S. (1993) *Genes Dev* 7, 2064-70.

(3) Finco, T.S. et al. (1994) *Proc Natl Acad Sci USA* 91, 11884-8.

(4) Brown, K. et al. (1995) *Science* 267, 1485-8.

(5) Brockman, J.A. et al. (1995) *Mol Cell Biol* 15, 2809-18.

(6) Traenckner, E.B. et al. (1995) *EMBO J* 14, 2876-83.

(7) Chen, Z.J. et al. (1996) *Cell* 84, 853-62.

(8) Zandi, E. et al. (1997) *Cell* 91, 243-52.

(9) Karin, M. (1999) *Oncogene* 18, 6867-74.

(10) DiDonato, J.A. et al. (1997) *Nature* 388, 548-54.

(11) Mercurio, F. et al. (1997) *Science* 278, 860-6.

(12) Johnson, L.N. et al. (1996) *Cell* 85, 149-58.

(13) Delhase, M. et al. (1999) *Science* 284, 309-13.

(14) Carter, R. S. et al. (2003) 278, 19642-19648.

(15) Prajapati, S. and Gaynor, R.B. (2002) *J. Biol. Chem.* 277, 24331-24339.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

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

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

Recommended Antibody Dilutions:

Western Blotting	1:2000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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.

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **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.