

CK1ε Antibody

✓ 100 µl
(10 western blots)



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

Entrez-Gene ID #1454
Swiss-Prot Acc. #P49674

Applications W, IP Endogenous	Species Cross-Reactivity* H, M, R, Mk	Molecular Wt. 43 kDa	Source Rabbit**
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Background: Casein Kinase I (CK1 or CKI) is the name given to a family of kinases consisting of multiple isoforms (α , α' , β , γ 1-3, δ , and ϵ) with a conserved N-terminal kinase domain and a variable C-terminal sequence that determines subcellular localization and regulates enzyme activity (1-3). Indeed, multiple inhibitory autophosphorylation sites have been identified near the C terminus of CK1ε (3). This ubiquitously expressed family of protein kinases has been implicated in multiple processes including DNA repair, cell morphology, and Wnt signaling (4). Perhaps the best understood role of CK1 is to provide the priming phosphorylation of β -catenin at Ser45 to produce the consensus GSK-3 substrate motif (S/T-X-X-pS) (4).

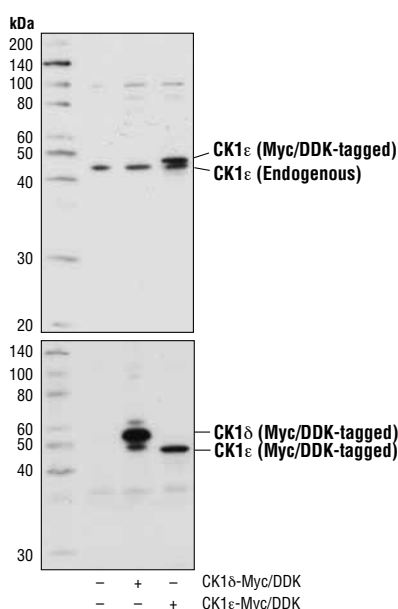
CK1ε is involved in many cellular processes such as differentiation (5-7), cell growth and apoptosis (8), and control of the circadian rhythm (9,10).

Specificity/Sensitivity: CK1ε Antibody recognizes endogenous levels of total CK1ε protein. This antibody does not cross-react with CK1δ.

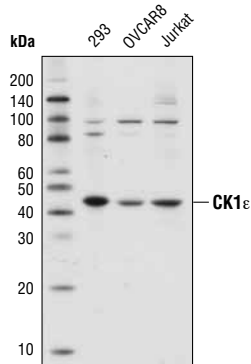
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala349 of human CK1ε protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Gross, S.D. and Anderson, R.A. (1998) *Cell. Signal.* 10, 699-711.
- Vancura, A. et al. (1994) *J. Biol. Chem.* 269, 19271-19278.
- Gietzen, K.F. and Virshup, D.M. (1999) *J. Biol. Chem.* 274, 32063-32070.
- Polakis, P. (2002) *Curr. Biol.* 12, R499-R501.
- Okamura, A. et al. (2004) *Blood* 103, 2997-3004.
- Swiatek, W. et al. (2006) *J Biol Chem* 281, 12233-41.
- Bischof, J. et al. (2011) *PLoS One* 6, e20857.
- Brockschmidt, C. et al. (2008) *Gut* 57, 799-806.
- Keesler, G.A. et al. (2000) *Neuroreport* 11, 951-5.
- Meng, Q.J. et al. (2008) *Neuron* 58, 78-88.



Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with constructs expressing Myc-tagged full-length human CK1δ (CK1δ-Myc/DDK; +) or Myc-tagged full-length human CK1ε (CK1ε-Myc/DDK; +), using CK1ε Antibody (upper) or Myc-Tag (71D10) Rabbit mAb #2278 (lower).



◀ Western blot analysis of extracts from various cell lines using CK1ε Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°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
Immunoprecipitation 1:50

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

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

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.