

**CKII alpha Antibody**  
Rabbit mAb  
Catalog # AP90241

## Specification

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### CKII alpha Antibody - Product Information

Application **WB, IHC, FC**  
Primary Accession [P68400](#)  
Reactivity **Rat**  
Clonality **Monoclonal**

#### Other Names

Casein kinase 2 alpha 1 polypeptide;Casein kinase II alpha subunit;CK II alpha;CK2 alpha;CK2A1;CKIIalpha;CSNK2A1

Isotype **Rabbit IgG**  
Host **Rabbit**  
Calculated MW **45144 Da**

### CKII alpha Antibody - Additional Information

Purification **Affinity-chromatography**  
Immunogen **A synthesized peptide derived from human CKII alpha**

Description **Catalytic subunit of a constitutively active serine/threonine-protein kinase complex that phosphorylates a large number of substrates containing acidic residues C-terminal to the phosphorylated serine or threonine. Regulates numerous cellular processes, such as cell cycle progression, apoptosis and transcription, as well as viral infection. May act as a regulatory node which integrates and coordinates numerous signals leading to an appropriate cellular response.**

Storage Condition and Buffer **Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

### CKII alpha Antibody - Protein Information

Name **CSNK2A1**

Synonyms **CK2A1**

#### Function

Catalytic subunit of a constitutively active serine/threonine-protein kinase complex that



href="http://www.uniprot.org/citations/19387552" target="\_blank">19387552</a>, PubMed:<a href="http://www.uniprot.org/citations/23123191" target="\_blank">23123191</a>). Also phosphorylates and regulates numerous transcription factors including NF-kappa-B, STAT1, CREB1, IRF1, IRF2, ATF1, ATF4, SRF, MAX, JUN, FOS, MYC and MYB (PubMed:<a href="http://www.uniprot.org/citations/12631575" target="\_blank">12631575</a>, PubMed:<a href="http://www.uniprot.org/citations/19387550" target="\_blank">19387550</a>, PubMed:<a href="http://www.uniprot.org/citations/19387551" target="\_blank">19387551</a>, PubMed:<a href="http://www.uniprot.org/citations/19387552" target="\_blank">19387552</a>, PubMed:<a href="http://www.uniprot.org/citations/23123191" target="\_blank">23123191</a>). Phosphorylates Hsp90 and its co-chaperones FKBP4 and CDC37, which is essential for chaperone function (PubMed:<a href="http://www.uniprot.org/citations/19387550" target="\_blank">19387550</a>). Mediates sequential phosphorylation of FNIP1, promoting its gradual interaction with Hsp90, leading to activate both kinase and non-kinase client proteins of Hsp90 (PubMed:<a href="http://www.uniprot.org/citations/30699359" target="\_blank">30699359</a>). Regulates Wnt signaling by phosphorylating CTNNB1 and the transcription factor LEF1 (PubMed:<a href="http://www.uniprot.org/citations/19387549" target="\_blank">19387549</a>). Acts as an ectokinase that phosphorylates several extracellular proteins (PubMed:<a href="http://www.uniprot.org/citations/12631575" target="\_blank">12631575</a>, PubMed:<a href="http://www.uniprot.org/citations/19387550" target="\_blank">19387550</a>, PubMed:<a href="http://www.uniprot.org/citations/19387551" target="\_blank">19387551</a>, PubMed:<a href="http://www.uniprot.org/citations/19387552" target="\_blank">19387552</a>). During viral infection, phosphorylates various proteins involved in the viral life cycles of EBV, HSV, HBV, HCV, HIV, CMV and HPV (PubMed:<a href="http://www.uniprot.org/citations/12631575" target="\_blank">12631575</a>, PubMed:<a href="http://www.uniprot.org/citations/19387550" target="\_blank">19387550</a>, PubMed:<a href="http://www.uniprot.org/citations/19387551" target="\_blank">19387551</a>, PubMed:<a href="http://www.uniprot.org/citations/19387552" target="\_blank">19387552</a>). Phosphorylates PML at 'Ser-565' and primes it for ubiquitin-mediated degradation (PubMed:<a href="http://www.uniprot.org/citations/20625391" target="\_blank">20625391</a>, PubMed:<a href="http://www.uniprot.org/citations/22406621" target="\_blank">22406621</a>). Plays an important role in the circadian clock function by phosphorylating BMAL1 at 'Ser-90' which is pivotal for its interaction with CLOCK and which controls CLOCK nuclear entry (By similarity). Phosphorylates CCAR2 at 'Thr-454' in gastric carcinoma tissue (PubMed:<a href="http://www.uniprot.org/citations/24962073" target="\_blank">24962073</a>). Phosphorylates FMR1, promoting FMR1-dependent formation of a membraneless compartment (PubMed:<a href="http://www.uniprot.org/citations/30765518" target="\_blank">30765518</a>, PubMed:<a href="http://www.uniprot.org/citations/31439799" target="\_blank">31439799</a>).

### Cellular Location

Nucleus

### Tissue Location

Expressed in gastric carcinoma tissue and the expression gradually increases with the progression of the carcinoma (at protein level).

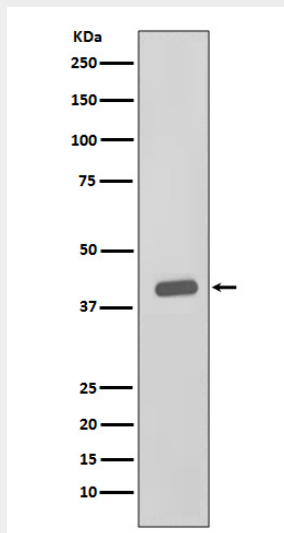
### CKII alpha Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

### CKII alpha Antibody - Images



Western blot analysis of CKII alpha expression in HeLa cell lysate.