

# **Human/Rat CaMKKα Antibody**

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF4536

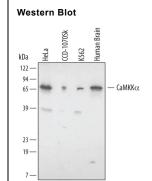
DESCRIPTION			
Species Reactivity	Human/Rat		
Specificity	Detects endogenous human and rat CaMKKα in Western blots. In Western blots, this antibody does not cross-react with recombinant human CaMKKβ.		
Source	Polyclonal Sheep IgG		
Purification	Antigen Affinity-purified		
Immunogen	E. coli-derived recombinant human CaMKKα Met1-Ser132 Accession # Q8N5S9		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

#### APPLICATIONS

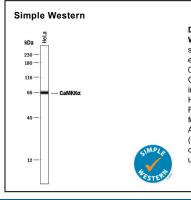
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below
Simple Western	10 μg/mL	See Below

### DATA



Detection of Human/Rat CaMKKα by Western Blot. Western Blot shows lysates of HeLa human cervical epithelial carcinoma cell line, CCD-1070Sk human foreskin fibroblast cell line, K562 human chronic myelogenous leukemia cell line, and human brain tissue. PVDF membrane was probed with 1  $\mu$ g/mL of Human/Rat CaMKKα Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4536) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CaMKK alpha at approximately 68 kDa (as indicated). This experiment was conducted using Immunoblot Buffer Group 1.



Detection of Human CaMKK $\alpha$  by Simple Western<sup>TM</sup>. Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for CaMKK $\alpha$  at approximately 68 kDa (as indicated) using 10  $\mu$ g/mL of Sheep Anti-Human/Rat CaMKK $\alpha$  Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4536) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

## PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.2 mg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

\*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## BACKGROUND

The calcium/calmodulin (CaM) kinase signaling cascade includes the upstream kinases CaM kinase kinase α (CaMKKα; also known as CaMKK1) and CaMKKβ (CaMKK2), and their substrates, the output kinases CaMKI and CaMKIV. Largely by activation of the transcription factor CREB, the CaM kinase cascade is implicated in neuronal development and long-term memory formation. In addition, CaMKKα is known to modulate skeletal muscle glucose uptake, and is upregulated during retinoic acid-induced neutrophil maturation.

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