



## CaMKIIα/δ (phospho Thr286) rabbit pAb

Cat#: orb770517 (Manual)

For research use only. Not intended for diagnostic use.

**Product Name** CaMKIIα/δ (phospho Thr286) rabbit pAb

Host species Rabbit

Applications WB;IHC;IF;ELISA

Species Cross-Reactivity Human; Mouse; Rat; Pig

**Recommended dilutions** Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300.

Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in

other applications.

Immunogen The antiserum was produced against synthesized peptide derived from

human CaMK2 around the phosphorylation site of Thr286. AA range:256-

305

Specificity Phospho-CaMKIIa/δ (T286) Polyclonal Antibody detects endogenous levels

of CaMKII $\alpha/\delta$  protein only when phosphorylated at T286.

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium

azide..

Storage Store at -20°C. Avoid repeated freeze-thaw cycles.

Protein Name Calcium/calmodulin-dependent protein kinase type II subunit alpha/delta

Gene Name CAMK2A/CAMK2D

Cellular localization Cell junction, synapse. Cell junction, synapse, postsynaptic density. Cell

projection, dendritic spine. Cell projection, dendrite. Postsynaptic lipid

rafts..

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.





Polyclonal **Clonality** 

Concentration 1 mg/ml

**Observed band** 54kD

**Human Gene ID** 815/817

**Human Swiss-Prot Number** Q9UQM7/Q13557

Alternative Names

CAMK2A; CAMKA; KIAA0968; Calcium/calmodulin-dependent protein kinase type II subunit alpha; CaM kinase II subunit alpha; CaMK-II subunit alpha; CAMK2D; CAMKD; Calcium/calmodulin-dependent protein kinase

type II subunit delta; CaM kinase II

**Background** The product of this gene belongs to the serine/threonine protein kinases

family, and to the Ca(2+)/calmodulin-dependent protein kinases subfamily. Calcium signaling is crucial for several aspects of plasticity at glutamatergic synapses. This calcium calmodulin-dependent protein kinase is composed of four different chains: alpha, beta, gamma, and delta. The alpha chain encoded by this gene is required for hippocampal long-term potentiation (LTP) and spatial learning. In addition to its calcium-calmodulin (CaM)-dependent activity, this protein can undergo autophosphorylation, resulting in CaMindependent activity. Two transcript variants encoding distinct isoforms have

been identified for this gene. [provided by RefSeq, Nov 2008],

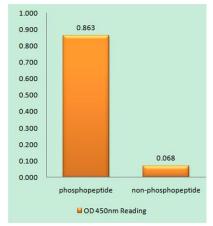


Western Blot analysis of HELA cells using Phospho-CaMKIIα/δ (T286) Polyclonal Antibody diluted at 1:500

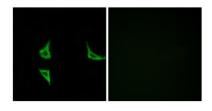




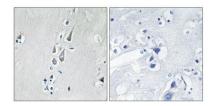
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CaMK2 (Phospho-Thr286) Antibody



Immunofluorescence analysis of COS7 cells, using CaMK2 (Phospho-Thr286) Antibody. The picture on the right is blocked with the phospho peptide.



 $Immunohistochemistry\ analysis\ of\ paraffin-embedded\ human\ brain,\ using\ CaMK2\ (Phospho-Thr286)\ Antibody.\ The\ picture\ on\ the\ right\ is\ blocked\ with\ the\ phospho\ peptide.$