



CaMKII δ epitope Affinity Purified Antibody

Quality Control Certificate of Analysis

Catalogue No.: A010-55eAP **Unit Size:** 25 μ l **Lot No.:** 0513-01

Background: Ca²⁺/calmodulin-dependent kinase II (CaMKII) is an ubiquitous, multifunctional serine/threonine kinase involved in translating Ca²⁺ signals into cellular responses (Shulman & Braun, 1999). Four separate CaMKII genes are expressed in man (α , β , γ , δ) and these have a conserved core structure comprising a catalytic / autoregulatory domain and a self-assembly / association domain. The CaMKII family consists of around 30 isoforms arising from alternative splicing. CaMKII δ is expressed in 10 alternatively spliced variants. All CaMKII δ variants contain the primary sequence (epitope) used to make this antibody. This antibody will recognise **ALL** full length CaMKII δ variants. CaMKII δ splice variants 2/3/4/8/9 (human) or B/C/D/H/I (rat) are expressed in the heart.

Description: Epitope Peptide affinity purified **Rabbit** polyclonal antibody (IgG) to CaMKII δ

Immunogen: Synthetic peptide (CYRSGSPTVPIK) corresponding to amino acids at the C-terminus of CaMKII δ which was conjugated to blue carrier protein.

Antibody Isotype: IgG.

Antibody Purity: Epitope Affinity Purified

Specificity: The antibody recognises the delta isoforms of CaMKII δ and stains a band of 45-50kDa when probed against rat cardiac myocytes, canine cardiac sarcoplasmic reticulum and rat skeletal muscle extract.

Species Cross Reactivity: This antibody has been tested against rat tissue extracts, but should recognise CaMKII δ in **ANY** mammalian species as the sequence is identical in all mammals.

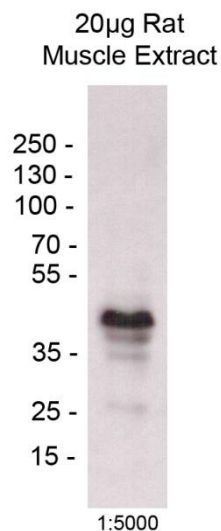
Vial Constituents: Lyophilised anti-CaMKII δ IgG protein A010-55eAP (25 μ l) in 20% stabilizer.

Storage Instructions: Lyophilised antibody is stable at 4°C when stored with desiccant. **Reconstitute lyophilised powder in 25 μ l of 18 M Ω H₂O**, aliquot and store frozen at -80°C for 1 year. Avoid freeze - thaw cycles.

Tested Applications: **WB 1:5000**. Not yet tested in other applications, therefore, optimal dilutions/concentrations should be determined by the user.

Human CaMKII δ isoform alignment. Uniprot sp|Q13557 1-11

alpha	V	H	F	H	R	S	G	A	P	S	V	L	P	H																					
beta1	V	H	F	H	C	S	G	A	P	V	A	P	L	Q																					
gamma1	V	H	Y	H	C	S	G	A	P	A	A	P	L	Q																					
Delta_2	V	H	F	H	R	S	G	S	P	T	V	P	I	K	P	P	C	I	P	N	G	K	E	N	F	S	G	G	T	S	L	W	Q	N	I	♥
3	V	H	F	H	R	S	G	S	P	T	V	P	I	K	P	P	C	I	P	N	G	K	E	N	F	S	G	G	T	S	L	W	Q	N	I	♥
4	V	H	F	H	R	S	G	S	P	T	V	P	I	K	P	P	C	I	P	N	G	K	E	N	F	S	G	G	T	S	L	W	Q	N	I	♥
6	V	H	F	H	R	S	G	S	P	T	V	P	I	K																					
7	V	H	F	H	R	S	G	S	P	T	V	P	I	K																					
8	V	H	F	H	R	S	G	S	P	T	V	P	I	K																					
9	V	H	F	H	R	S	G	S	P	T	V	P	I	K	P	P	C	I	P	N	G	K	E	N	F	S	G	G	T	S	L	W	Q	N	I	♥
10	V	H	F	H	R	S	G	S	P	T	V	P	I	K																					
11	V	H	F	H	R	S	G	S	P	T	V	P	I	K	P	P	C	I	P	N	G	K	E	N	F	S	G	G	T	S	L	W	Q	N	I
12	V	H	F	H	R	S	G	S	P	T	V	P	I	N																					
Peptide	C Y R S G S P T V P I K																																			



WB using 1:5000 A010-55eAP against 20 μ g of Rat Muscle Extract.
Exposure time 2 seconds.

Related Products: anti-CaMKII Phospho Thr-286 (A010-50AP). CaMKII δ 2/3/4/9/11 (A010-56AP)

Background References:

- HUDMON, A. & SCHULMAN, H. 2002. Neuronal Ca²⁺/calmodulin-dependent protein kinase II: the role of structure and autoregulation in cellular function. *Annu. Rev. Biochem*, 71, 473-510.

- TAKEUCHI, M. & FUJISAWA, H. 1998. New alternatively spliced variants of calmodulin-dependent protein kinase II from rabbit liver. *Gene*, 221, 107-15.