CaMKII delta isoforms (2/3/4/9/11/11a) pAb

Quality Control Certificate of Analysis
Catalogue No.:A010-56AP
Unit Size: 100 µg
Lot No.: 642108

Background: Ca^{2+}/calmodulin-dependent kinase II (CaMKII) is an ubiquitous, multifunctional serine/threonine kinase involved in translating Ca^{2+}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. Several CaMKIIδ variants contain a C-terminal extension (δ variants 2/3/4/9/11/11a). The primary sequence (epitope) used to make this antibody is shared by all these variants (2/3/4/9/11/11a), and this antibody will recognise each of these CaMKIIδ splice variants.

Description: Protein A affinity purified **Rabbit** polyclonal antibody to CaMKIIδ1/2/3/4/9/11/11a

Immunogen: Synthetic peptide (CKENFSGGTSLWQNI) corresponding to amino acids at the C-terminus of human CaMKIIδ isoform 3 or rat/mouse isoform 2 which was conjugated to blue carrier protein.

Antibody Isotype: IgG.

Antibody Purity: Protein A affinity purified

Vial Constituents: Lyophilised CaMKIIδ2/3/4/9/11/11a IgG protein A010-56AP (100 µg) in 20% stabilizer.

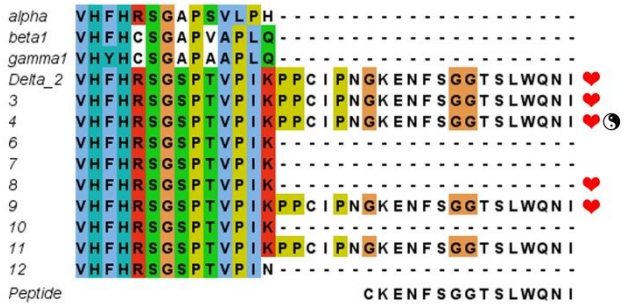
Specificity: The antibody stains for a band at 55kDa on a blot corresponding to delta isoforms of CaMKII that contain the additional C-terminal sequence.

Species Cross Reactivity: A010-56AP recognises CaMKIIδ variants (containing C-terminal extension) in all mammalian but has only been tested on rat and canine samples.

Storage Instructions: Lyophilised antibody is stable at 4°C when stored with desiccant**. Reconstitute lyophilised powder in 50 µl of 18 MΩ H_2O**, aliquot and store frozen at -80°C for 1 year. Avoid freeze - thaw cycles.

Tested Applications: WB 1:2000.

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



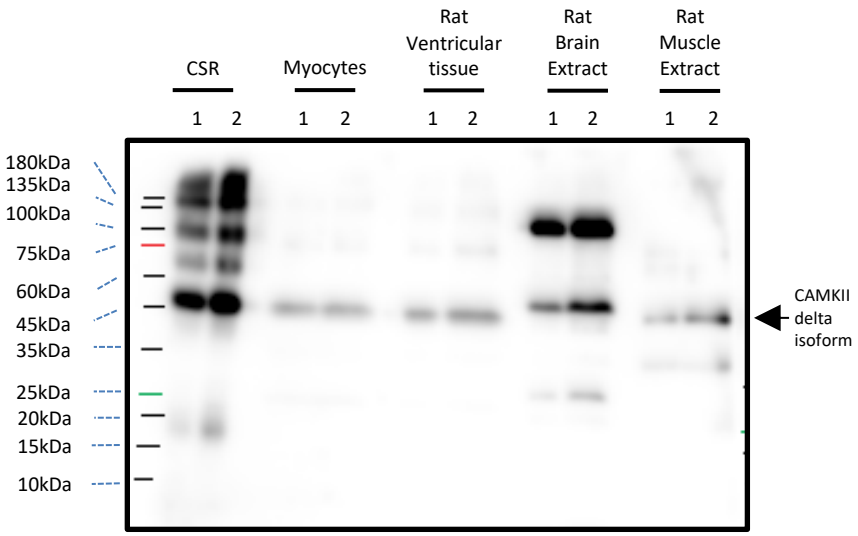


Image: **CAMKII delta isoform Detected Using Badrilla's anti-CAMKII delta isoforms (2/3/4/9/11/11a) polyclonal antibody (A010-56AP, lot 642108).**
CSR, ln 1 – 4µg; ln 2 - 8 µg: Adult Rat Ventricular Myocytes, ln 1 – 10µg; ln 2 - 35µg: Rat ventricular tissue, ln 1 – 20µg; ln 2 - 40µg: Rat brain extract ln 1 – 20µg; ln 2 40µg: Rat muscle extract, ln 1 – 20µg; ln 2 - 40µg were analysed by SDS PAGE followed by western blot.

A010-56AP, lot 642108 was used at a dilution of 1:2000

SDS PAGE on 12% Gels; Blot developed on Syngene G:Box digital imaging system (3m exposure).

Related Products: anti-CaMKII Phospho Thr-286 (A010-50AP). CaMKII δ (A010-55AP)

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.