bs-9921R **[Primary Antibody]**

CaMKII delta Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 817 **SWISS:** Q13557

Target: CaMKII delta

Immunogen: KLH conjugated synthetic peptide derived from Human CAMK2D/CaMKII delta: 271-370/499.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: The Ca2+/calmodulin-dependent protein kinases (CaM kinases) comprise a structurally related subfamily of serine/threonine kinases which include CaMKI, CaMKII and CaMKIV. CaMKII is a ubiquitously expressed serine/threonine protein kinase that is activated by Ca2+and calmodulin (CaM) and has been implicated in regulation of the cell cycle and transcription. There are four CaMKII isozymes designated å, ∫, © and ∂, which may or may not be co-expressed in the same tissue type. CaMKIV is stimulated by Ca2+ and CaM but phosphorylation by a CaMK is also required for full activation. Stimulation of the T cell receptor CD3 signaling complex with an anti-CD3 monoclonal antibody leads to a 10-40 fold increase in CaMKIV activity. An additional kinase, CaMKK, functions to activate CaMKI through the specific phosphorylation of the regulatory threonine residue at position 177.

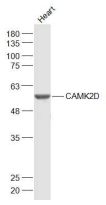
Applications: **WB** (1:500-2000)

Reactivity: Mouse (predicted: Rat, Pig, Cow)

Predicted MW.: 56 kDa

Subcellular Location: Cell membrane

VALIDATION IMAGES



Sample: Heart (Mouse) Lysate at 40 ug Primary: Anti-CAMK2D (bs-9921R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 56 kD Observed band size: 56 kD

SELECTED CITATIONS

- **[IF=4.8]** Yinjie Zhang. et al. Mechanistic Insights into Suanzaoren Decoction's Improvement of Cardiac Contractile Function in Anxiety-Induced Cardiac Insufficiency. J ETHNOPHARMACOL. 2024 Sep;:118860 IHC,WB ;Mouse. 39341264
- **[IF=4.169]** Cheng, Baixiang. et al. Distinctive Roles of Wnt Signaling in Chondrogenic Differentiation of BMSCs under Coupling of Pressure and Platelet-Rich Fibrin. Tissue Engineering and Regenerative Medicine. 2022 Apr;:1-15 WB ;Rabbit. 35467329
- **[IF=4.319]** Jia Li. et al. Study of the Mechanism of Antiemetic Effect of Lavandula angustifolia Mill. Essential Oil Based on Ca²⁺/CaMKII/ERK1/2 Pathway. DRUG DES DEV THER. 2022 Jul;16:2407-2422 IHC ;Rat.

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- **[IF=2.2]** Yang Yahua. et al. Calcium promoting maturity of oocytes through calcium/calmodulin-dependent protein kinase II of yak (Bos grunniens). ITAL J ANIM SCI. 2024 六月 14 IHC,IF ;Yak,Mouse. 10.1080/1828051X.2024.2358869