

Anti-CAMK2D Antibody (7Z493)

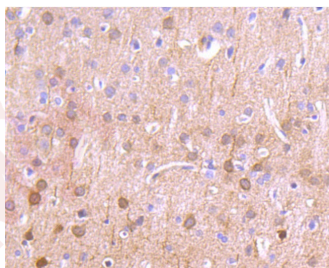
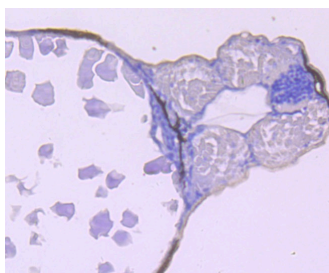
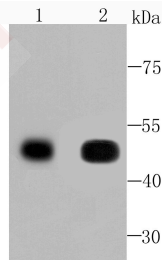
Product Details

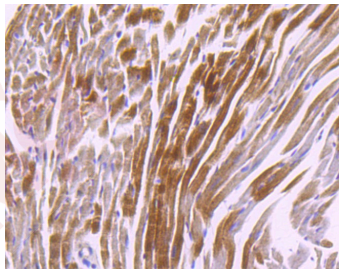
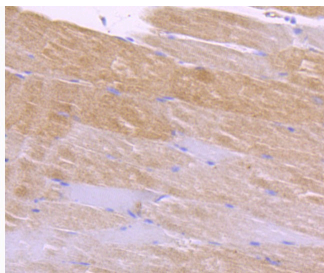
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat,zebrafish
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 50 kDa.
Clone:	7Z493
Purification:	ProA affinity purified

Applications

Verified Activity:

1. Western blot analysis of CaMKII delta on Human skeletal muscle (1) and Rat heart (2) cells lysates using anti-CaMKII delta antibody at 1/500 dilution.
2. Immunohistochemical analysis of paraffin-embedded zebrafish tissue using anti-CaMKII delta antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-CaMKII delta antibody. Counter stained with hematoxylin.
4. Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue using anti-CaMKII delta antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-CaMKII delta antibody. Counter stained with hematoxylin.





Application: IHC,WB

Recommended WB: 1:500-2000; IHC: 1:50-200

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: Q13557

Synonyms: CaMK-II subunit delta;CaM kinase II subunit delta;Calcium/calmodulin-dependent protein kinase type II subunit delta;CAMK2D;CAMKD

Research Background

Calcium/calmodulin-dependent protein kinase involved in the regulation of Ca²⁺ homeostasis and excitation-contraction coupling (ECC) in heart by targeting ion channels, transporters and accessory proteins involved in Ca²⁺ influx into the myocyte, Ca²⁺ release from the sarcoplasmic reticulum (SR), SR Ca²⁺ uptake and Na⁺ and K⁺ channel transport. Targets also transcription factors and signaling molecules to regulate heart function. In its activated form, is involved in the pathogenesis of dilated cardiomyopathy and heart failure. Regulates Ca²⁺ influx to myocytes by binding and phosphorylating the L-type Ca²⁺ channel subunit beta-2 CACNB2. In addition to Ca²⁺ channels, can target and regulate the cardiac sarcolemmal Na⁺ channel Nav1.5/SCN5A and the K⁺ channel Kv4.3/KCND3, which contribute to arrhythmogenesis in heart failure. Phosphorylates phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2, contributing to the enhancement of SR Ca²⁺ uptake that may be important in frequency-dependent acceleration of relaxation (FDAR) and maintenance of contractile function during acidosis.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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