



Datasheet for ABIN6260430

## anti-CAMK2D antibody (C-Term)

1 Image



[Go to Product page](#)

### Overview

Quantity:	100 µL
Target:	CAMK2D
Binding Specificity:	C-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CAMK2D antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

### Product Details

Immunogen:	A synthesized peptide derived from human CAMK2D, corresponding to a region within C-terminal amino acids.
Isotype:	IgG
Specificity:	CAMK2D Antibody detects endogenous levels of total CAMK2D.
Predicted Reactivity:	Pig, Sheep, Rabbit, Dog
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

### Target Details

Target:	CAMK2D
---------	--------

## Target Details

---

Alternative Name:	<a href="#">CAMK2D (CAMK2D Products)</a>
Background:	<p>Description: Calcium/calmodulin-dependent protein kinase involved in the regulation of Ca<sup>2+</sup> homeostasis and excitation-contraction coupling (ECC) in heart by targeting ion channels, transporters and accessory proteins involved in Ca<sup>2+</sup> influx into the myocyte, Ca<sup>2+</sup> release from the sarcoplasmic reticulum (SR), SR Ca<sup>2+</sup> uptake and Na<sup>+</sup> and K<sup>+</sup> 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. Contributes to cardiac decompensation and heart failure by regulating SR Ca<sup>2+</sup> release via direct phosphorylation of RYR2 Ca<sup>2+</sup> channel on 'Ser-2808'. In the nucleus, phosphorylates the MEF2 repressor HDAC4, promoting its nuclear export and binding to 14-3-3 protein, and expression of MEF2 and genes involved in the hypertrophic program. Is essential for left ventricular remodeling responses to myocardial infarction. In pathological myocardial remodeling acts downstream of the beta adrenergic receptor signaling cascade to regulate key proteins involved in ECC. Regulates Ca<sup>2+</sup> influx to myocytes by binding and phosphorylating the L-type Ca<sup>2+</sup> channel subunit beta-2 CACNB2. In addition to Ca<sup>2+</sup> channels, can target and regulate the cardiac sarcolemmal Na<sup>+</sup> channel Nav1.5/SCN5A and the K<sup>+</sup> 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 Ca<sup>2+</sup> uptake that may be important in frequency-dependent acceleration of relaxation (FDAR) and maintenance of contractile function during acidosis. May participate in the modulation of skeletal muscle function in response to exercise, by regulating SR Ca<sup>2+</sup> transport through phosphorylation of PLN/PLB and triadin, a ryanodine receptor-coupling factor.</p>
	Gene: CAMK2D
Molecular Weight:	56 kDa
Gene ID:	817
UniProt:	<a href="#">Q13557</a>
Pathways:	<a href="#">WNT Signaling</a> , <a href="#">Interferon-gamma Pathway</a> , <a href="#">Myometrial Relaxation and Contraction</a> , <a href="#">Smooth Muscle Cell Migration</a>

## Application Details

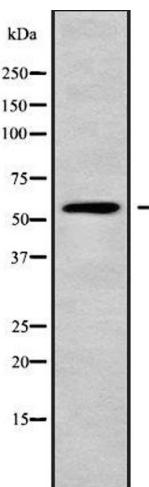
---

Application Notes:	WB 1:1000-3000, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

## Images



### Western Blotting

**Image 1.** Western blot analysis of CAMK2D using HepG2 whole cell lysates