Data Sheet (Cat.No.TMAC-00536)

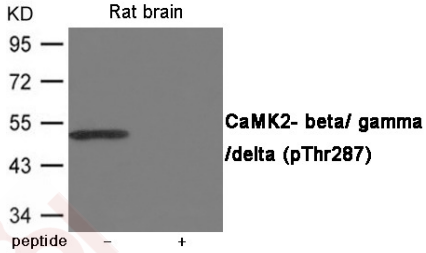
Anti-Phospho-CAMKII beta/gamma/delta (Thr287) Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Actual: 50 kDa.
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.

Applications

Verified Activity:	1. Western blot analysis of extracts from Rat brain using CaMK2-beta/gamma/delta (Phospho-Thr287) Antibody TMAC-00536. The lane on the right is treated with the antigen-specific peptide.



Application:	ELISA,IF,IHC,WB

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:	Peptide sequence around phosphorylation site of Threonine 287 (Q-E-T(p)-V-E) derived from Human CaMK2- beta/ gamma/ delta
Antigen Species:	human
Uniprot ID:	Q13554 & Q13555 & Q13557
Synonyms:	CAMKII beta/gamma/delta (p-Thr287);p-CAMKII beta/gamma/delta (T287);p-CAMKII beta/gamma/delta (Thr287);CAMKII beta/gamma/delta (p-T287)

Research Background

Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca2+/calmodulin-binding and autophosphorylation, and is involved in dendritic spine and synapse formation, neuronal plasticity and regulation of sarcoplasmic reticulum Ca2+ transport in skeletal muscle. In neurons, plays an essential structural role in the reorganization of the actin cytoskeleton during plasticity by binding and bundling actin filaments in a kinase-independent manner. This structural function is required for correct targeting of CaMK2A, which acts downstream of

NMDAR to promote dendritic spine and synapse formation and maintain synaptic plasticity which enables long-term potentiation (LTP) and hippocampus-dependent learning. In developing hippocampal neurons, promotes arborization of the dendritic tree and in mature neurons, promotes dendritic remodeling. Participates in the modulation of skeletal muscle function in response to exercise. In slow-twitch muscles, is involved in regulation of sarcoplasmic reticulum (SR) Ca2+ transport and in fast-twitch muscle participates in the control of Ca2+ release from the SR through phosphorylation of triadin, a ryanodine receptor-coupling factor, and phospholamban (PLN/PLB), an endogenous inhibitor of SERCA2A/ATP2A2.

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