

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CaM Kinase II γ in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human (rh) CaM Kinase II β is observed, and less than 5% cross-reactivity with rhCaM Kinase II α and rhCaM Kinase II δ is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CaM Kinase II γ Ala448-Gln558 Accession # Q13555
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

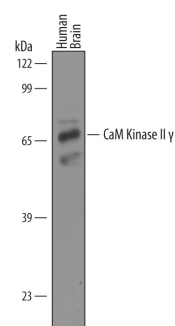
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 μ g/mL	See Below
Immunohistochemistry	1-15 μ g/mL	See Below

DATA

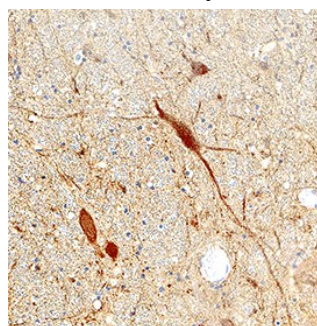
Western Blot



Detection of Human CaM Kinase II gamma by Western Blot.

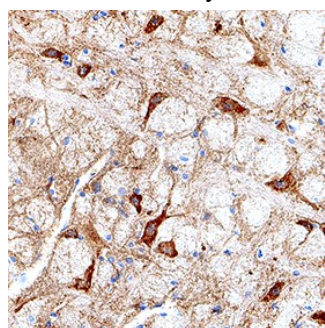
Western blot shows lysates of human brain tissue. PVDF membrane was probed with 1 μ g/mL of Sheep Anti-Human CaM Kinase II gamma Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7280) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CaM Kinase II gamma at approximately 55-65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



CaM Kinase II γ in Human Brain. CaM Kinase II γ was detected in immersion fixed paraffin-embedded sections of human brain (substantia nigra) using Sheep Anti-Human CaM Kinase II γ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7280) at 1 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in neurons. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Immunohistochemistry



CaM Kinase II γ in Mouse Brain. CaM Kinase II γ was detected in perfusion fixed frozen sections of mouse brain (brainstem) using Sheep Anti-Human CaM Kinase II γ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7280) at 1 μ g/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in neurons. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Calcium/calmodulin-dependent protein kinase type II gamma (CaMKII γ) belongs to a family of multifunctional serine/threonine kinases activated in response to increases in intracellular calcium. There are 4 CaMKII isozymes, α , β , γ , and δ , and each can yield several isoforms through alternative splicing. CaMKII isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. The widely expressed CaMKII γ from human, mouse, and rat share 100% aa sequence identity within aa 448-558 of isoform 1.