Human CaM Kinase II γ Antibody  
Antigen Affinity-purified Polyclonal Sheep IgG  
Catalog Number: AF7280

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  E. coli-derived recombinant human CaM Kinase II γ 
Ala448-Gln558  Accession #: Q13555
Formulation  Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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 μg/mL  See Below
Immunohistochemistry  1-15 μg/mL  See Below

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 μg/mL of Sheep Anti-Human CaM Kinase II gamma Antibody (Cat. # 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 Antibody (Cat. # AF7280) at 1 μg/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.

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.
- 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 (CaMKIIγ) belongs to a family of multifunctional serine/threonine kinases activated in response to increases in intracellular calcium. There are 4 CaMKII isoforms, 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 CaMKIIγ from human, mouse, and rat share 100% aa sequence identity within aa 448-558 of isoform 1.