Human/Mouse/Rat Calcineurin B Antibody
Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF1348

DESCRIPTION
Species Reactivity
Human/Mouse/Rat

Specificity
Detects human, mouse, and rat Calcineurin B in Western blots.

Source
Polyclonal Rabbit IgG

Purification
Antigen Affinity-purified

Immunogen
E. coli-derived recombinant human Calcineurin B
Accession # P63098

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
0.25 µg/mL
See Below
Simple Western
2.5 µg/mL
See Below

DATA
Western Blot
Detection of Human/Mouse/Rat Calcineurin B by Western Blot. Western blot shows lysates of mouse brain tissue, HT-29 human colon adenocarcinoma cell line, PC-12 rat adrenal pheochromocytoma cell line, C6 rat glioma cell line, and T91 mouse helper T cell line. PVDF membrane was probed with 0.25 µg/mL of Rabbit Anti-Human/Mouse/Rat Calcineurin B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1348) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Calcineurin B at approximately 19 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western
Detection of Human Calcineurin B by Simple Western™. Simple Western lane view shows lysates of HT-29 human colon adenocarcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Calcineurin B at approximately 24 kDa (as indicated) using 2.5 µg/mL of Rabbit Anti-Human/Mouse/Rat Calcineurin B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1348). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE
Reconstitution
Reconstitute at 0.2 mg/mL in sterile PBS.

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 as supplied.

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
Calcineurin, also called Protein Phosphatase 2B, PP2B, PPP2B, Protein Phosphatase 3, and PPP3, is an enzyme that dephosphorylates serine and threonine residues in proteins. It is a heterodimer of a 59,000 dalton catalytic A subunit and a 1,900 dalton regulatory B subunit that is activated by the binding of calcium ions and calmodulin (1). Calcineurin is expressed in many tissues, but its levels are highest in the brain, where it may play a role in learning and memory (2). It has many substrates, including NFAT, a transcription factor that is activated by dephosphorylation (3). Complexes of the immunosuppressants cyclosporin and FK506 with immunophilin proteins such as cyclophilin and FKBP12 are potent and specific inhibitors of Calcineurin activity (4). Alterations in Calcineurin activity are suspected to play a role in cardiac hypertrophy (5) and graft versus host disease in organ transplantation (6).

References: