

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. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

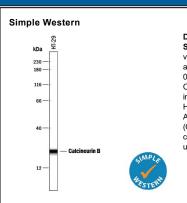
APPLICATIONS

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

Western Blot 23 -19 Calcineurin B

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 TS1 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



Detection of Human Calcineurin B by Simple WesternTM. 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

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.

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:

- Stemmer, P.M and C.B. Klee (1994) Biochemistry 33:6859.
- Zeng H. et al. (2001) Cell 107:617.
- Okamura, H. et al. (2000) Molecular Cell 6:539. 3.
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- Molkentin, J.D. (2000) Circulation Research 87:731.
- Sanquer, S.A. et al. (2004) Transplantation 77:854. 6.

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