Human/Mouse/Rat Cyclophilin A Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF3589

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Cyclophilin A in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Cyclophilin A Met1-Glu165 Accession # P62937
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 as a 0.2 µm filtered solution in PBS.

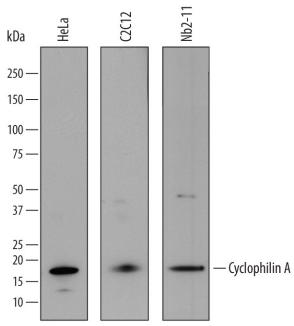
APPLICATIONS

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	0.1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

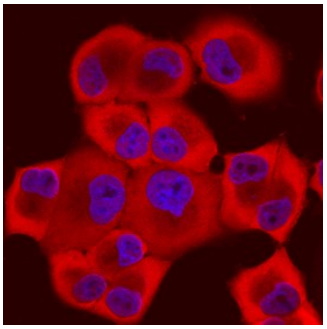
DATA

Western Blot



Detection of Human, Mouse, and Rat Cyclophilin A by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, C2C12 mouse myoblast cell line, and Nb2-11 rat lymphoma cell line. PVDF membrane was probed with 0.1 µg/mL of Goat Anti-Human Cyclophilin A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3589) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Cyclophilin A at approximately 18 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Cyclophilin A in PANC-1 Human Cell Line. Cyclophilin A was detected in immersion fixed PANC-1 human pancreatic carcinoma cell line using Goat Anti-Human/Mouse/Rat Cyclophilin A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3589) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

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.

BACKGROUND

Cyclophilin A, also called Peptidyl-prolyl Isomerase A, PPIA, CYPA, and CYPH, was originally characterized for its ability to catalyze the transition between cis- and trans- proline residues critical for proper folding of proteins (1). Cyclophilin is also incorporated into many viruses, including HIV-1, where it has been speculated to be involved in functions such as viral assembly and infectivity (2). The immunosuppressive activity of cyclosporins has been correlated with their ability to form complexes with cyclophilins that inhibit calcineurin phosphatase activity (3) and prevent incorporation of cyclophilin into viral particles (4). The cyclosporin/cyclophilin complex selectively binds and inactivates calcineurin (3, 5), making it a useful inhibitor for studying calcineurin activity.

References:

1. Hamilton, G.S. and J.P. Steiner (1998) J. Med. Chem. **41**:5119.
2. Cantin, R. *et al.* (2005) J. Virology **79**:6577.
3. Liu, J. *et al.* (1992) Biochemistry **31**:3896.
4. Wiegers K. and H.G. Krausslich (2002) Virology **294**:289.
5. Liu, J. *et al.* (1991) Cell **66**:807.