

DESCRIPTION

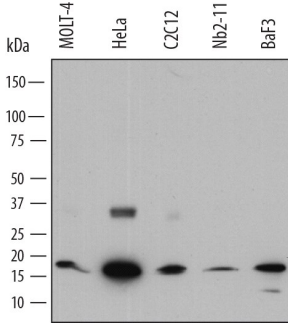
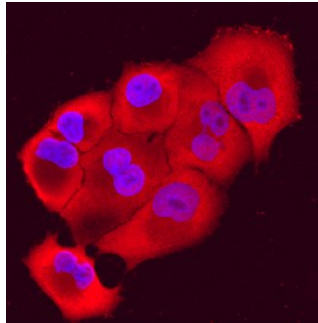
Species Reactivity	Human
Specificity	Detects human Cyclophilin A in direct ELISAs and Western blots. Detects mouse and rat Cyclophilin in Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human (rh) Cyclophilin E, less than 15% cross-reactivity with rhCyclophilin F, and less than 5% cross-reactivity with rhCyclophilin A-like 4 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 817815
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -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	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detailed description: A Western blot image with five lanes labeled MOLT-4, HeLa, C2C12, Nb2-11, and BaF3. On the left, molecular weight markers are listed in kDa: 150, 100, 75, 50, 37, 25, 20, 15, and 10. A horizontal line points to a band at approximately 18 kDa, labeled 'Cyclophilin A'. This band is present in all five lanes.</p>	<p>Immunocytochemistry</p>  <p>Detailed description: A fluorescence microscopy image of PANC-1 cells. The nuclei are stained blue with DAPI, and the cytoplasm and nucleus show red staining for Cyclophilin A.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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

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. Wieggers K. and H.G. Krausslich (2002) *Virology* **294**:289.
5. Liu, J. *et al.* (1991) *Cell* **66**:807.