

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat PP2Cα/PPM1A in Western blots. No cross-reactivity with recombinant human PP2Cβ, ILKAP/PP2Cδ, or PP2Cγ is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 498922
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human PP2Cα/PPM1A Met1-Gly324 Accession # P35813
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Protein phosphatase 2C alpha, also called PP2Cα, Protein Phosphatase, Magnesium-dependent type 1A, and PPM1A, dephosphorylates proteins with some preference for phospho-threonine over phospho-serine residues (1). It is insensitive to the PP1 and PP2a inhibitors such as okadaic acid, (2) but has an absolute requirement for either magnesium or manganese ions (3) and can be activated by unsaturated fatty acids such as arachidonic and oleic acids (4). Overexpression of PP2Cα causes G2/M cell cycle arrest and apoptosis that has been associated with the activation of p53 (5). Dephosphorylation of proteins in the nucleus by PP2Cα is suspected to play a role in terminating or reducing the sensitivity of the responses to SMADS (6) and stress-activated proteins such as p38 and JNK (7).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.