Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - 200-301-964S

Code: 200-301-964S **Size:** 25 µL

Product Description: Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - 200-301-964S

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	PDCD4
Species Reactivity	human, mouse, rat, xenopus
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	mouse anti-Pdcd4 pS457 Antibody, Death up-regulated gene protein antibody, Dug antibody, H731 antibody, Ma3 antibody, Neoplastic transformation inhibitor antibody, Neoplastic transformation inhibitor protein antibody, Nuclear antigen H731 antibody
Application Note	This monoclonal antibody is suitable for ELISA, immunohistochemistry and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band
Background	Programmed cell death 4 (Pdcd4) is a novel tumor supressor. Pdcd4 directly inhibits the helicase activity of eukaryotic translation initiation factor 4A (eIF4A), a component of the translation initiation complex. Pdcd4 also suppresses the transactivation of activator protein-1 (AP-1)-responsive promoters by c-Jun. Pdcd4 contains two Akt phosphoryl-ation sites, one at Ser67 and the other at Ser457. The phosphorylation of Pdcd4 by Akt causes nuclear translocation of Pdcd4 and a significant decrease in the ability of Pdcd4 to interfere with the transactivation of AP-1-responsive promoters by c-Jun.
Purity And Specificity	This product was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human Pdcd4 protein phosphorylated at Ser457. A BLAST analysis was used to suggest cross-reactivity with Pdcd4 from human, mouse, rat and Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with Pdcd4 from other sources has not been determined.
Assay Dilutions	User Optimized
ELISA	1:20,000 - 1:100,000
Western Blot	1:2,000 - 1:10,000
Immunohistochemistry	1:1,000 - 1:5,000
Other Assays	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding Ser457 of the human Pdcd4 protein.
General Reference	Jansen AP, Camalier CE, Colburn NH (2005) Epidermal expression of the translation inhibitor programmed cell death 4 suppresses tumorigenesis. Cancer Res. 65(14):6034-6041.Palamarchuk A, Efanov A, Maximov V, Aqeilan RI, Croce CM, Pekarsky Y (2005) Akt phosphorylates and regulates Pdcd4 tumor suppressor protein. Cancer Res. 65 (24):11282-11286.
Specific Reference	Tzu-Hsuan Huang, GB Loeb, R Hsu, A Heidersbach, A Brincat, D Horiuchi, RJ Lebbink, YY Mo, A Goga, MT McManus. Up-regulation of miR-21 by HER2/neu Signaling Promotes Cell Invasion J. Biol. Chem. 2009 284: 18515-18524. First Published on May 6, 2009, doi:10.1074/jbc.M109.006676
Related Products	

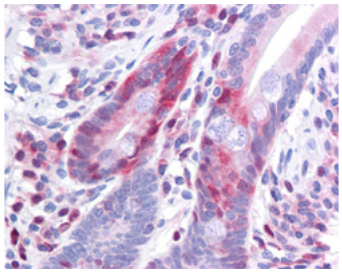
200-401-A34	Anti-Survivin (RABBIT) Antibody - 200-401-A34
600-401-964	Anti-Pdcd4 pS457 (RABBIT) Antibody - 600-401-964
600-401-965	Anti-Pdcd4 (RABBIT) Antibody - 600-401-965
600-401-966	Anti-DAXX (RABBIT) Antibody - 600-401-966

Related Links

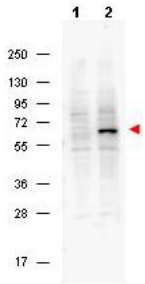
	UniProtKB - Q53EL6
http://www.uniprot.org/uniprot/Q53EL6	
NCBI - 21735596	http://www.ncbi.nlm.nih.gov/protein/21735596
	GeneID - 27250

Images

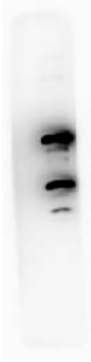
1 Rockland Antibody 200-301-964 has been tested in immunohistochemistry, analyzed by an anatomic pathologist and validated for use in IHC applications against formalin-fixed, paraffin-embedded human tissues. The antibody was serially diluted and tested at a range of concentrations on at least 22 different human formalin-fixed, paraffin archival tissues, and positive and negative tissues were scored and compared to the published literature on the expression and function of the gene. A representative image from positively stained small intestine shows the localization of the anti Pdcd4 antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Image provided courtesy of LifeSpan Biosciences, Seattle, WA



2 Western blot using Rockland's Protein A purified Mouse Monoclonal anti-Pdcd4 pS457 antibody shows detection of phosphorylated Pdcd4 (indicated by arrowhead at ~62 kDa) in NIH-3T3 cells after 5 min treatment with 30 ng/mL PDGF (lane 2). No reactivity is seen for unstimulated (non-phosphorylated) NIH 3T3 cells (lane 1). The membrane was probed with the primary antibody at a 1:2,000 dilution, overnight at 4° C. For detection HRP conjugated Rb-a-Mouse IgG was used at a 1:20,000 dilution in blocking buffer (p/n MB-070) for 1 h at 4° C followed by visualization using a Biospectrum® imaging system (UVP).



3 Western blot using Rockland Immunochemicals Protein A purified Mouse Monoclonal anti-Pdcd4 pS457 antibody against recombinant PDCD4 protein. Membrane was blocked in 1% BSA-TBS-T for 30 min RT and probed with 1° Ab Ms-A-Pdcd4pS457 1:1000 (o/n 4°C in 1% BSA-TBS-T) followed by 2° Ab Peroxidase Conjugated Rabbit anti Ms CUST10M Lot# 20121 at 1:40,000 in MB-070 30 min RT. Bands at ~62 kD and ~32 kD were detected.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.