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Datasheet for 200-301-964

Pdcd4 phospho S457 Antibody

Overview

Description:	Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - 200-301-964
Item No.:	200-301-964
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Mouse

Product Details

Background:	Programmed cell death 4 (Pdcd4) is a novel tumor suppressor. 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 phosphorylation 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.
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
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	9G6
Format:	IgG1

Target Details

Gene Name:	PDCD4
Reactivity:	Human, Mouse
PTM Specificity:	Phosphorylation

Immunogen Type:	Conjugated Peptide
Immunogen:	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding Ser457 of the human Pdcd4 protein.
Purity/Specificity:	Pdcd4 phospho S457 Antibody 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.
Relevant Links:	• NCBI - 21735596 • UniProtKB - Q53EL6 • GeneID - 27250

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Pdcd4 phospho S457 Antibody is tested by ELISA, immunohistochemistry, and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 62 kDa in size corresponding to phosphorylated Pdcd4 protein by western blotting in the appropriate cell lysate or extract. This phospho-specific monoclonal antibody reacts with human Pdcd4 pS457 and shows minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 - 1:100,000
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

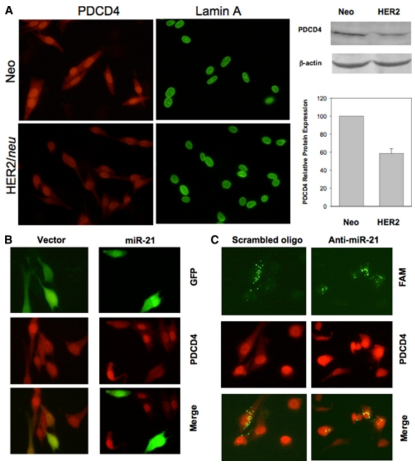
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

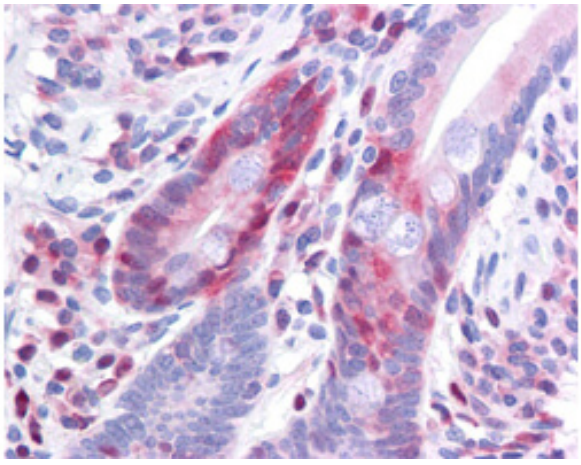
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

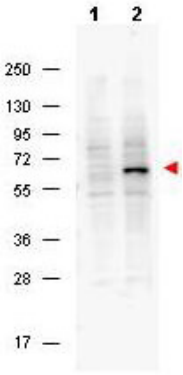
Images



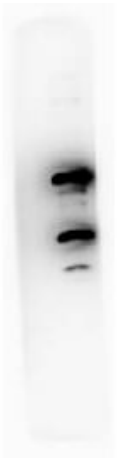
Immunofluorescence Microscopy
HER2/neu down-regulates PDCD4 expression via miR-21. A, detection of PDCD4 expression in MDA-MB-435/HER2/neu and MDA-MB-435/Neo cells by immunofluorescence microscopy. Nuclear structure protein lamin A represented a positive control in this experiment. B, miR-21 down-regulates PDCD4 in MDA-MB-435/Neo cells. C, anti-miR-21 increased PDCD4 level in MDA-MB-435/HER2/neu. In B and C, cells were first transfected with either miR-21 expression vector or carboxyfluorescein (FAM)-labeled anti-miR-21 and then immunostained with PDCD4 antibody, as described under "Experimental Procedures."
FIGURE 5. PMID: 19419954



Immunohistochemistry
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



Western Blot
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 (p/n W10-001-377) after 5 min treatment with 30 ng/mL PDGF [lane 2]. No reactivity is seen for (non-phosphorylated) in unstimulated NIH 3T3 cells (p/n W10-000 -358) [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 (p/n 610-4302) 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).



Western Blot
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

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