

**Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody**  
**Pdcd4 phospho S457 Antibody**  
**Catalog # ASR4171**

**Specification**

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**Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - Product Information**

Host	Mouse
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human, Mouse
Clonality	Monoclonal
Application	WB, IHC, E, I, LCI
Application Note	<b>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.</b>
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	<b>This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding Ser457 of the human Pdcd4 protein.</b>
Preservative	0.01% (w/v) Sodium Azide

**Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - Additional Information**

**Gene ID** 27250

**Other Names**  
27250

**Purity**

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.

**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.

#### **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

### **Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - Protein Information**

**Name** PDCD4

**Synonyms** H731

#### **Function**

Inhibits translation initiation and cap-dependent translation. May exert its function by hindering the interaction between EIF4A1 and EIF4G. Inhibits the helicase activity of EIF4A. Modulates the activation of JUN kinase. Down-regulates the expression of MAP4K1, thus inhibiting events important in driving invasion, namely, MAPK85 activation and consequent JUN-dependent transcription. May play a role in apoptosis. Tumor suppressor. Inhibits tumor promoter-induced neoplastic transformation. Binds RNA (By similarity).

#### **Cellular Location**

Nucleus {ECO:0000250|UniProtKB:Q61823}. Cytoplasm {ECO:0000250|UniProtKB:Q61823}. Note=Shuttles between the nucleus and cytoplasm (By similarity). Predominantly nuclear under normal growth conditions, and when phosphorylated at Ser-457 (PubMed:16357133)

#### **Tissue Location**

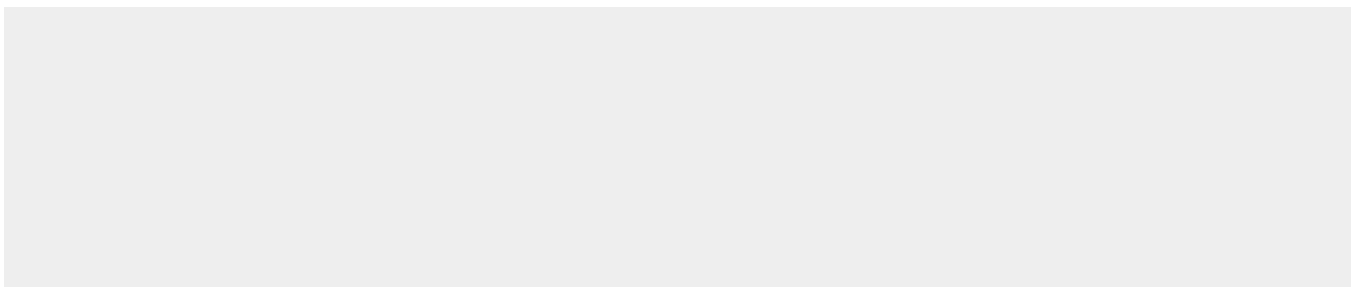
Up-regulated in proliferative cells. Highly expressed in epithelial cells of the mammary gland. Reduced expression in lung cancer and colon carcinoma.

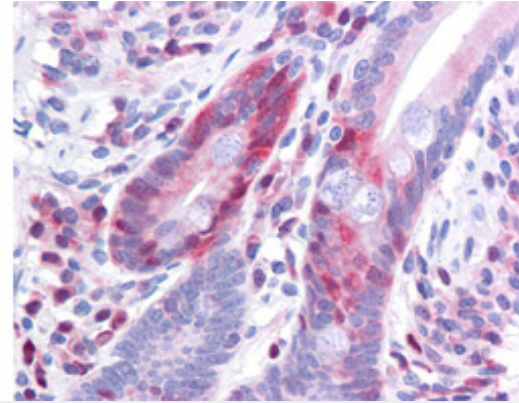
### **Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - Images**





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

#### **Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody - 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.