

**Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody Biotin Conjugated**  
**Pdcd4 phospho S457 Antibody Biotin Conjugated**  
**Catalog # ASR4318**

**Specification**

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

Host	Mouse
Conjugate	Biotin
Target Species	Human
Reactivity	Rat, Human, Mouse, Xenopus
Clonality	Monoclonal
Application	WB, E, IP, I, LCI
Application Note	Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody Biotin Conjugated has been tested by ELISA and western blotting and is suitable for immunohistochemistry. 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.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding Ser457 of the human Pdcd4 protein.
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Stabilizer	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Preservative	0.01% (w/v) Sodium Azide

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

**Gene ID** 27250

**Other Names**  
27250

**Purity**

Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody Biotin Conjugated 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 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. 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 Biotin Conjugated - 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**

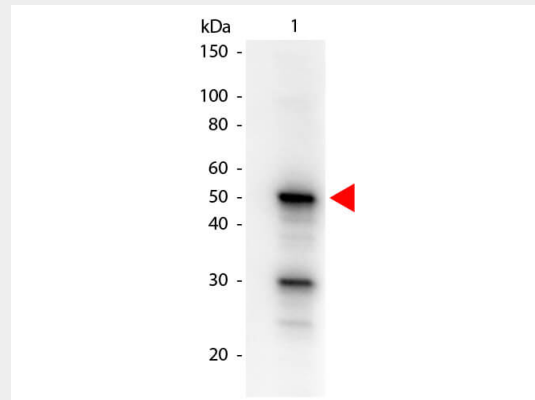
Up-regulated in proliferative cells. Highly expressed in epithelial cells of the mammary gland. Reduced expression in lung cancer and colon carcinoma.

**Anti-Pdcd4 pS457 (MOUSE) Monoclonal Antibody Biotin Conjugated - 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 Biotin Conjugated - Images**



Western Blot of Mouse anti-Pdcd4 phospho S457 Biotin Conjugated antibody. Lane 1: Pdcd4 recombinant protein. Lane 2: none. Load: 100 ng per lane. Primary antibody: Pdcd4 phospho S457 Biotin Conjugated antibody at 1:1,000 for overnight at 4°C. Secondary antibody: HRP Streptavidin secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 50 kDa, 50 kDa for Pdcd4 phospho S457. Other band(s): Pdcd4 phospho S457 splice variants and isoforms

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