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PDCD4 Antibody
Catalog # ASC10474

Specification

PDCD4 Antibody - Product Information

Application	**WB, IHC-P, E**
Primary Accession	Q53EL6
Other Accession	NP_663314, 21735598
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**PDCD4 antibody can be used for detection of PDCD4 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.**

PDCD4 Antibody - Additional Information

Gene ID **27250**

Other Names
PDCD4 Antibody: H731, H731, Programmed cell death protein 4, Neoplastic transformation inhibitor protein, programmed cell death 4 (neoplastic transformation inhibitor)

Target/Specificity
PDCD4;

Reconstitution & Storage
PDCD4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
PDCD4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PDCD4 Antibody - Protein Information

Name PDCD4

Synonyms H731

Function
Inhibits translation initiation and cap-dependent translation. May excert 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)

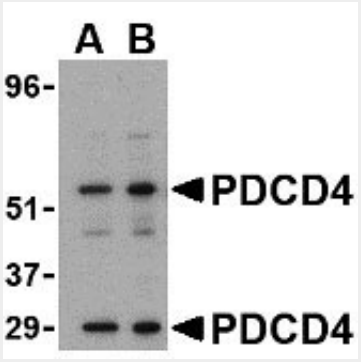
Tissue Location
Up-regulated in proliferative cells. Highly expressed in epithelial cells of the mammary gland. Reduced expression in lung cancer and colon carcinoma.

PDCD4 Antibody - Protocols

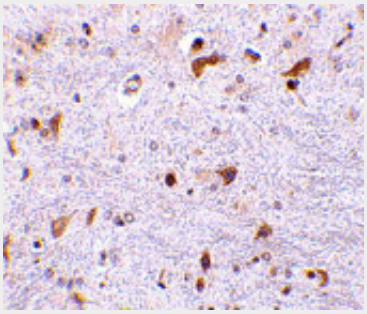
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PDCD4 Antibody - Images



Western blot analysis of PDCD4 in A-20 cell lysate with PDCD4 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of PDCD4 in mouse brain tissue with PDCD antibody at 2.5 µg/mL.

PDCD4 Antibody - Background

PDCD4 Antibody: Apoptosis, also known as programmed cell death, plays major roles in development and normal tissue turnover in addition to tumor formation. During this process, the expression patterns of numerous genes are radically altered. One such gene is the programmed cell death protein 4 (PDCD4), whose expression was found to be upregulated in all cell lines following the onset of apoptosis. PDCD4 encodes a tumor suppressor protein whose expression is lost in carcinomas of breast, colon, lung and prostate. It can bind to and inhibit the helicase activity of the eukaryotic translation initiation factor 4A and inhibit the transactivation and transformation mediated by the transcription factor AP-1. The kinase Akt regulates PDCD4 by phosphorylation, decreasing the ability of PDCD4 to interfere with the transactivation of AP-1-responsive promoter by c-Jun. There are two known isoforms of PDCD4.

PDCD4 Antibody - References

Jin Z and El Deiry WS. Overview of cell death signaling pathways. Cancer Biol. Ther. 2004; 4:139-63.
Shibihara K, Asano M, Ishida Y, et al. Isolation of a novel mouse gene MA-3 that is induced upon programmed cell death. Gene 1995; 166:297-301.
Goke R, Barth P, Schmidt A, et al. Programmed cell death 4 suppresses CDK1/cdc2 via induction of p21 (Waf1/Cip1). Am. J. Physiol. Cell Physiol. 2004; 287:C1541-6.
Yang HS, Jansen AP, Nair R, et al. The transformation suppressor Pdcd4 is a novel translation initiation factor 4A binding protein that inhibits translation. Mol. Cell Biol. 2003; 23:26-37.