

Anti-Pdcd4 phospho S457 Monoclonal Antibody

Catalog Number: MP01105

About PDCD4

Programmed cell death 4 (Pdc4) is a novel tumor suppressor. Pdc4 directly inhibits the helicase activity of eukaryotic translation initiation factor 4A (eIF4A), a component of the translation initiation complex. Pdc4 also suppresses the transactivation of activator protein-1 (AP-1)-responsive promoters by c-Jun. Pdc4 contains two Akt phosphorylation sites, one at Ser67 and the other at Ser457. The phosphorylation of Pdc4 by Akt causes nuclear translocation of Pdc4 and a significant decrease in the ability of Pdc4 to interfere with the transactivation of AP-1-responsive promoters by c-Jun.

Overview

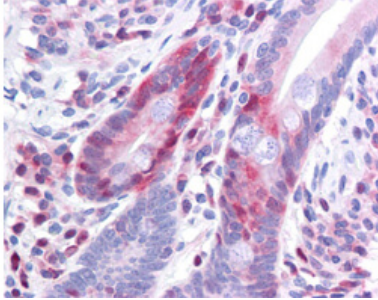
Product Name	Anti-Pdcd4 phospho S457 Monoclonal Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Pdcd4 phospho S457 Monoclonal Antibody (Catalog # MP01105). Tested in ELISA, IHC, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, IHC, WB
Clonality	Monoclonal Clone: 9G6
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	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 date is one (1) year from date of opening. (Ship on dry ice.)
Host	Mouse
Uniprot ID	Q53EL6

Technical Details

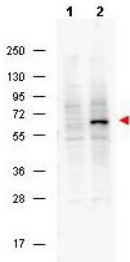
Immunogen	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to residues surrounding Ser457 of the human Pdc4 protein.
Predicted Reactive Species	Hepatitis Virus
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG1 kappa
Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm

Purification	Pdc4 phospho S457 Antibody was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human Pdc4 protein phosphorylated at Ser457. A BLAST analysis was used to suggest cross-reactivity with Pdc4 from human, mouse, rat and Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with Pdc4 from other sources has not been determined.
Suggested Dilutions	ELISA: 1:20,000 - 1:100,000 IHC: 1:1,000 - 1:5,000 WB: 1:2,000 - 1:10,000 Pdc4 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 Pdc4 protein by western blotting in the appropriate cell lysate or extract. This phospho-specific monoclonal antibody reacts with human Pdc4 pS457 and shows minimal reactivity by ELISA against the non-phosphorylated form of the immunizing peptide.

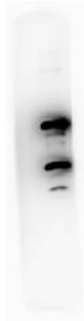
Anti-Pdcd4 phospho S457 Monoclonal Antibody (MP01105) Images



Boster 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 using Boster'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 (non-phosphorylated) in unstimulated 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 for 1 h at 4° C followed by visualization using a Biospectrum® imaging system (UVP).



Western blot using Boster 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 at 1:40,000 in 30 min RT. Bands at ~62 kD and ~32 kD were detected.

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