

#13490 Store at -20°C

PACT (D9N6J) Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, eCLIP	H Mk	Endogenous	30	Rabbit IgG	#O75569	8575

Product Usage Information**Application**Western Blotting
Immunoprecipitation
eCLIP**Dilution**1:1000
1:50
1:200

For more information about eCLIP and the RBP-eCLIP kit, please visit Eclipse Bioinnovations.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

PACT (D9N6J) Rabbit mAb recognizes endogenous levels of total PACT protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human PACT protein.

Background

PACT (protein activator of protein kinase R) is a double stranded RNA binding protein and a cellular activator of PKR (protein kinase R), a kinase that mediates the antiviral and antiproliferative actions of interferon (1). Stress signals such as serum starvation and arsenite treatment induces PACT to heterodimerize with PKR, resulting in the phosphorylation of eIF-2α and inhibition of protein synthesis (1,2). PACT has also been shown to play a role in RNA-mediated gene silencing by stimulating the activity of Dicer, thereby affecting the efficiency of miRNA accumulation and siRNA gene silencing (3,4). More recently, PACT has been shown to interact with RIG-I, a sensor of viral nucleic acids, and stimulates RIG-I-induced type I interferon production (5). Researchers have found that mutations in PACT are associated with dystonia, a movement disorder where patients develop involuntary muscle contractions and postures (6-8).

Background References

1. Patel, R.C. and Sen, G.C. (1998) *EMBO J* 17, 4379-90.
2. Patel, C.V. et al. (2000) *J Biol Chem* 275, 37993-8.
3. Lee, Y. et al. (2006) *EMBO J* 25, 522-32.
4. Koscianska, E. et al. (2011) *PLoS One* 6, e28548.
5. Kok, K.H. et al. (2011) *Cell Host Microbe* 9, 299-309.
6. Bragg, D.C. et al. (2011) *Neurobiol Dis* 42, 136-47.
7. Camargos, S. et al. (2008) *Lancet Neurol* 7, 207-15.
8. Seibler, P. et al. (2008) *Lancet Neurol* 7, 380-1.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation **eCLIP:** eCLIP**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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