

# PRODUCT INFORMATION



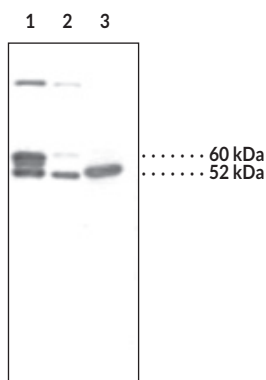
## Programmed Cell Death Protein 4 (C-Term) Polyclonal Antibody

Item No. 10250

### Overview and Properties

<b>Contents:</b>	This vial contains 500 µl of peptide-affinity purified polyclonal antibody.
<b>Synonyms:</b>	Neoplastic Transformation Inhibitor, PDCD4
<b>Immunogen:</b>	Synthetic peptide from the C-terminal region of human protein
<b>Species Reactivity:</b>	(+)Human, mouse and rat, predicted; canine, bovine, and chicken
<b>Uniprot No.:</b>	Q53EL6
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Storage Buffer:</b>	TBS, pH 7.4, with 50% glycerol, 0.1% BSA, and 0.02% sodium azide
<b>Stability:</b>	≥3 years
<b>Host:</b>	Rabbit
<b>Applications:</b>	Western blot; the recommended starting dilution 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: HeLa cell lysate (20 µg)  
Lane 2: RAW 264.7 cell lysate (20 µg)  
Lane 3: C6 cell lysate (20 µg)

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Programmed cell death protein 4 (PDCD4) levels are elevated during apoptosis and absent in many cancer samples.<sup>{16340,16167}</sup> Loss of PDCD4 expression is an important event in cancer cell progression whereas the restoration of PDCD4 protein can lower metalloproteinase activity and possible metastasis.<sup>{16167,16166}</sup> The known isoforms of PDCD4 differ only at the N-terminal with isoform 1 comprised of 468 amino acids and isoform 2 comprised of 458 amino acids. Each isoform contains two MA-3 domains essential for binding of PDCD4 binding to eIF4A, thereby suppressing cell cycle regulation and growth factor production.<sup>{16166,16167,16345}</sup> This antibody is capable of detecting both PDCD4 isoforms. Additional protein modifications are possible and can explain the range of masses detected by immunoblotting (52-64 kDa).<sup>{16340}</sup> The molecular mechanisms of PDCD4 influence on tumor suppression are becoming known but warrant further research.<sup>{16166,16168,16167}</sup>

## References

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1. Cmarik, J.L., Min, H., Hegamyer, G., *et al.* Differentially expressed protein Pdc4 inhibits tumor promoter-induced neoplastic transformation. *Proceedings of the National Academy of Sciences of the United States of America* **96(24)**, 14037-14042 (1999).
2. Nieves-Alicea, R., Colburn, N.H., Simeone, A.M., *et al.* Programmed cell death 4 inhibits breast cancer cell invasion by increasing tissue inhibitor of metalloproteinases-2 expression. *Breast Cancer Research and Treatment* (2008).
3. Bitomsky, N., Wethkamp, N., Marikkannu, R., *et al.* siRNA-mediated knockdown of Pdc4 expression causes upregulation of p21(Waf1/Cip1) expression. *Oncogene* (2008).
4. Yang, H.S., Cho, M.H., Zakowicz, H., *et al.* A novel function of the MA-3 domains in transformation and translation suppressor Pdc4 is essential for its binding to eukaryotic translation initiation factor 4A. *Molecular and Cellular Biology* **24(9)**, 3894-3906 (2004).
5. Böhm, M., Sawicka, K., Siebrasse, J.P., *et al.* The transformation suppressor protein Pdc4 shuttles between nucleus and cytoplasm and binds RNA. *Oncogene* **22**, 4905-4910 (2003).

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