

## CDK4 Antibody

Catalog No: #21437

Package Size: #21437-1 50ul #21437-2 100ul #21437-4 25ul

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## Description

Product Name	CDK4 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total CDK4 protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.295~299(L-H-K-D-E)derived from Human CDK4.
Target Name	CDK4
Other Names	PSK-J3; CMM3; CMM3
Accession No.	Swiss-Prot: P11802NCBI Protein: NP_000066.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

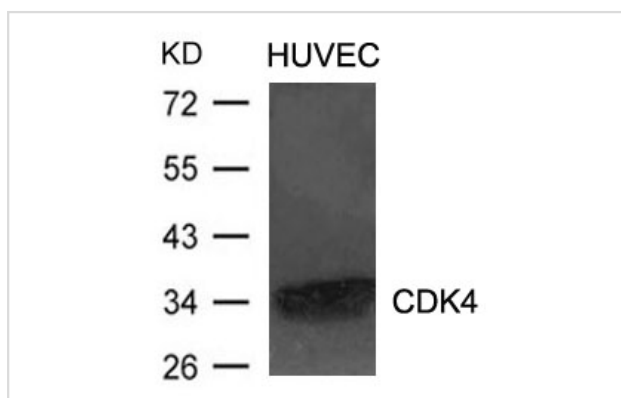
## Application Details

Predicted MW: 34kd

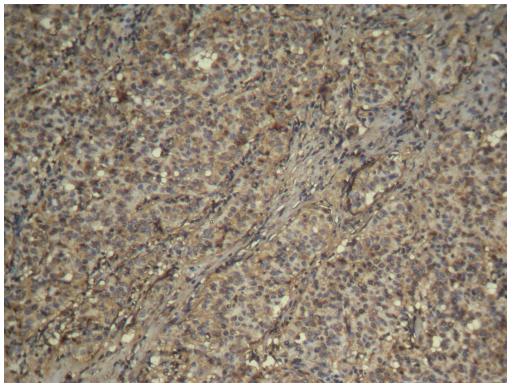
Western blotting: 1:500~1:1000

Immunohistochemistry:1:50~1:100

## Images



Western blot analysis of extracts from HUVEC cells using CDK4 Antibody #21437.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using CDK4 Antibody #21437.

## Background

Cyclin-dependent kinase activity is regulated by T-loop phosphorylation (Thr172 in the case of CDK4), by the abundance of their cyclin partners, and by association with CDK inhibitors of the Cip/Kip or INK family of proteins. The inactive ternary complex of CDK4/cyclin D and p27 Kip1/Cip1 requires extracellular mitogenic stimuli for the release and degradation of p27, which affects progression through the restriction point and pRb-dependent entry into S-phase. The active complex of CDK4/cyclin D targets the retinoblastoma protein for phosphorylation, allowing the release of E2F transcription factors that activate G1/S-phase gene expression. In HeLa cells, upon UV irradiation, upregulation of p16 INK4A association with CDK4/cyclin D3 leads to a G2 delay, implicating CDK4/cyclin D3 activity in progression through the G2-phase of the cell cycle.

Hirai, H. et al. (1995) *Mol. Cell. Biol.* 15, 2672-2681.

Sherr, C.J. (1996) *Science* 274, 1672-1677.

Lukas, J. et al. (1996) *Mol. Cell. Biol.* 16, 6917-6925.

Gabrielli, B.G. et al. (1999) *J Biol Chem* 274, 13961-9.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.