

**DATASHEET**

**CDK4 Rabbit Monoclonal Antibody(C1645)**

CAT. NO. AMA01257

**KEY FEATURES**

|               |  |               |              |
|---------------|--|---------------|--------------|
| Target        | CDK4   | Source / Host | Rabbit       |
| Reactivity    | Human  | Clonality     | Monoclonal   |
| Applications  | WB, IHC, IF/ICC  | Conjugation   | Unconjugated |
| Form / Buffer | Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide. | Storage       | at-20°C      |

**BACKGROUND**

Ser/Thr-kinase component of cyclin D-CDK4 (DC) complexes that phosphorylate and inhibit members of the retinoblastoma (RB) protein family including RB1 and regulate the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complexes and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also phosphorylates SMAD3 in a cell-cycle-dependent manner and represses its transcriptional activity.

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

|        |                |
|--------|----------------|
| WB     | 1:500 - 1:1000 |
| IHC    | 1:50 - 1:200   |
| IF/ICC | 1:50 - 1:200   |

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

|                   |  |
|-------------------|--|
| Description       | Recombinant rabbit monoclonal antibody to CDK4   |
| Specificity       | Recognizes endogenous levels of CDK4 protein.  |
| Antibody Type     | Primary antibody, Recombinant  |
| Immunogen         | KLH-conjugated synthetic peptide encompassing a sequence of human CDK4. The exact sequence is proprietary. |
| Purification      | The antibody was purified by immunogen affinity chromatography.  |
| Molecular Weight  | Predicted: 33 kD; Observed: 34 kD  |
| Form/Buffer       | Liquid in PBS, pH 7.4, containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.                           |
| Alternative Names | Cyclin-dependent kinase 4; Cell division protein kinase 4; PSK-J3  |
| Gene Symbol       | CDK4   |
| Entrez Gene       | 1019(Human)  |
| SwissProt         | P11802(Human)  |

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

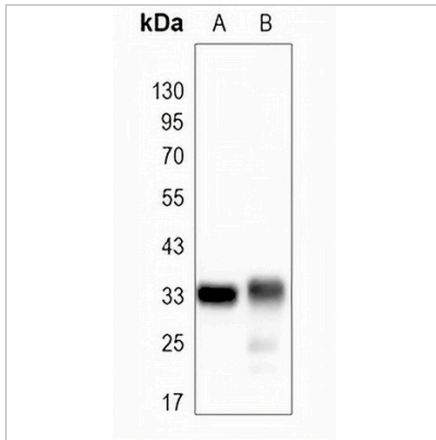
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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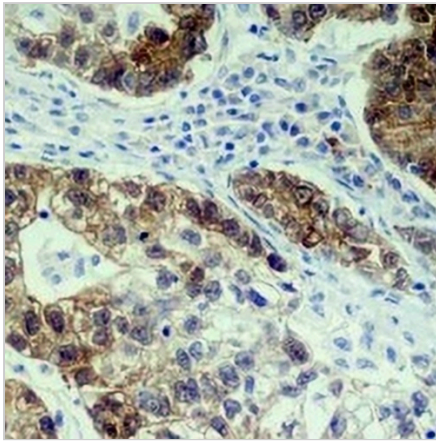
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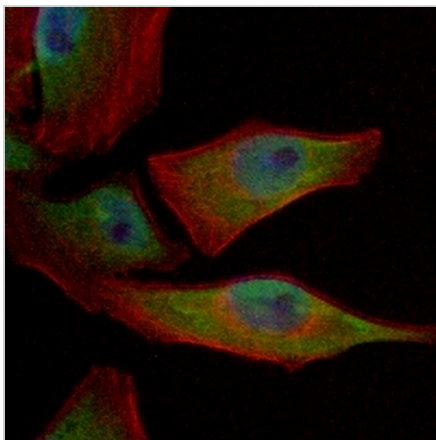
**DATA**



Western blot analysis of CDK4 expression in HeLa (A), MCF7 (B) whole cell lysates. (Predicted band size: 33 kD; Observed band size: 34 kD)



Immunohistochemical analysis of CDK4 staining in human stomach cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CDK4 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.