

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse CDK4 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human CDK4 Met1-Glu303 Accession # P11802
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CDK4 (cyclin-dependent kinase 4) is a 34 kDa member of the CMGC Ser/Thr protein kinase family of enzymes. Within the cell, pRb/retinoblastoma protein is normally unphosphorylated and suppresses cell growth at the G1 stage of the cell cycle. When mitosis is required, CDK4 is phosphorylated, forms a complex with cyclin D1, 2 or 3, and phosphorylates pRb/retinoblastoma protein. This inactivates pRb and cells initiate DNA synthesis. Human CDK4 is 303 amino acids (aa) in length. It contains one protein kinase domain (aa 6-295) and an activating phosphorylation site at Thr172. There are three potential variants; one that shows an alternate start site at Met75, a second that shows a two aa substitution for aa 89-211, and a third that shows a 23 aa substitution for aa 89-303. Full-length human and mouse CDK4 are 95% aa identical.

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