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# CrkRS (CRK7) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7533A

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | Q9NYV4 |
| **Other Accession** | Q3MJK5, Q14AX6 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Calculated MW** | 164155 |
| **Antigen Region** | 1-30 |

## Additional Information

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| **Gene ID** | 51755 |
| **Other Names** | Cyclin-dependent kinase 12, Cdc2-related kinase, arginine/serine-rich, CrkRS, Cell division cycle 2-related protein kinase 7, CDC2-related protein kinase 7, Cell division protein kinase 12, hCDK12, CDK12, CRK7, CRKRS, KIAA0904 |
| **Target/Specificity** | This CrkRS (CRK7) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human CrkRS (CRK7). |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | CrkRS (CRK7) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | CDK12 |
| **Synonyms** | CRK7, CRKRS, KIAA0904 |

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| **Function** | Cyclin-dependent kinase that phosphorylates the C-terminal domain (CTD) of the large subunit of RNA polymerase II (POLR2A), thereby acting as a key regulator of transcription elongation. Regulates the expression of genes involved in DNA repair and is required for the maintenance of genomic stability. Preferentially phosphorylates 'Ser-5' in CTD repeats that are already phosphorylated at 'Ser-7', but can also phosphorylate 'Ser-2'. Required for RNA splicing, possibly by phosphorylating SRSF1/SF2. Involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors. |
| **Cellular Location** | Nucleus. Nucleus speckle. Note=Colocalized with nuclear speckles throughout interphase. |
| **Tissue Location** | Widely expressed.. |

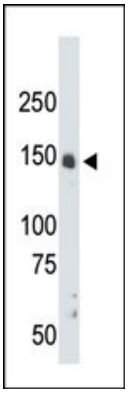
## Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

## References

Ko, T.K., et al., J. Cell. Sci. 114 (Pt 14), 2591-2603 (2001).

## Images




The anti-CRK7 Pab (Cat. #AP7533a) is used in Western blot to detect CRK7 in mouse liver tissue lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.