

Datasheet for ABIN684092

## **anti-CDK9 antibody (pThr186) (Cy5)**



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### Overview

|                      |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quantity:            | 100 µL                                                                                                                                                |
| Target:              | CDK9                                                                                                                                                  |
| Binding Specificity: | pThr186                                                                                                                                               |
| Reactivity:          | Human, Mouse                                                                                                                                          |
| Host:                | Rabbit                                                                                                                                                |
| Clonality:           | Polyclonal                                                                                                                                            |
| Conjugate:           | This CDK9 antibody is conjugated to Cy5                                                                                                               |
| Application:         | Western Blotting (WB), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Flow Cytometry (FACS) |

### Product Details

|                       |                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------|
| Immunogen:            | KLH conjugated synthetic phosphopeptide derived from human CDK9 around the phosphorylation site of Thr186 |
| Isotype:              | IgG                                                                                                       |
| Cross-Reactivity:     | Human, Mouse                                                                                              |
| Predicted Reactivity: | Rat,Dog,Cow,Pig,Horse,Chicken                                                                             |
| Purification:         | Purified by Protein A.                                                                                    |

### Target Details

|         |      |
|---------|------|
| Target: | CDK9 |
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## Target Details

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| Alternative Name: | CDK9 ( <a href="#">CDK9 Products</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Background:       | <p>Synonyms: TAK, C-2k, CTK1, CDC2L4, PITALRE, Cyclin-dependent kinase 9, Cell division cycle 2-like protein kinase 4, Cell division protein kinase 9, Serine/threonine-protein kinase PITALRE, Tat-associated kinase complex catalytic subunit, CDK9</p> <p>Background: Protein kinase involved in the regulation of transcription. Member of the cyclin-dependent kinase pair (CDK9/cyclin-T) complex, also called positive transcription elongation factor b (P-TEFb), which facilitates the transition from abortive to productive elongation by phosphorylating the CTD (C-terminal domain) of the large subunit of RNA polymerase II (RNAP II) POLR2A, SUPT5H and RDBP. This complex is inactive when in the 7SK snRNP complex form. Phosphorylates EP300, MYOD1, RPB1/POLR2A and AR, and the negative elongation factors DSIF and NELF. Regulates cytokine inducible transcription networks by facilitating promoter recognition of target transcription factors (e.g. TNF-inducible RELA/p65 activation and IL-6-inducible STAT3 signaling). Promotes RNA synthesis in genetic programs for cell growth, differentiation and viral pathogenesis. P-TEFb is also involved in cotranscriptional histone modification, mRNA processing and mRNA export. Modulates a complex network of chromatin modifications including histone H2B monoubiquitination (H2Bub1), H3 lysine 4 trimethylation (H3K4me3) and H3K36me3, integrates phosphorylation during transcription with chromatin modifications to control co-transcriptional histone mRNA processing. The CDK9/cyclin-K complex has also a kinase activity towards CTD of RNAP II and can substitute for CDK9/cyclin-T P-TEFb in vitro. Replication stress response protein, the CDK9/cyclin-K complex is required for genome integrity maintenance, by promoting cell cycle recovery from replication arrest and limiting single-stranded DNA amount in response to replication stress, thus reducing the breakdown of stalled replication forks and avoiding DNA damage. In addition, probable function in DNA repair of isoform 2 via interaction with KU70/XRCC6. Promotes cardiac myocyte enlargement.</p> |
| Gene ID:          | 1025                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| UniProt:          | <a href="#">P50750</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pathways:         | <a href="#">Cell Division Cycle</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Application Details

|                    |                    |
|--------------------|--------------------|
| Application Notes: | FCM 1:20-100       |
|                    | IF(IHC-P) 1:50-200 |
|                    | IF(IHC-F) 1:50-200 |
|                    | IF(ICC) 1:50-200   |

## Application Details

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|--------------------|--------------------------------------------------------------------------------------------------------------------|
| Restrictions:      | For Research Use only                                                                                              |
| Handling           |                                                                                                                    |
| Format:            | Liquid                                                                                                             |
| Concentration:     | 1 µg/µL                                                                                                            |
| Buffer:            | Aqueous buffered solution containing 0.01M TBS ( pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol.        |
| Preservative:      | ProClin                                                                                                            |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only. |
| Storage:           | -20 °C                                                                                                             |
| Storage Comment:   | Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles.                                  |
| Expiry Date:       | 12 months                                                                                                          |