

# Phospho-MYT1(T495) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP3173a

## Product Information

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|-------------------|------------------------|
| Application       | DB, WB, IHC-P, E       |
| Primary Accession | <a href="#">Q99640</a> |
| Reactivity        | Human                  |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Isotype           | Rabbit IgG             |
| Calculated MW     | 54521                  |

## Additional Information

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|--------------------|--|
| Gene ID            | 9088   |
| Other Names        | Membrane-associated tyrosine- and threonine-specific cdc2-inhibitory kinase, Myt1 kinase, PKMYT1, MYT1   |
| Target/Specificity | This MYT1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T495 of human MYT1.   |
| Dilution           | DB~~1:500 WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.  |
| Format             | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| 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        | Phospho-MYT1(T495) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

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|----------|--|
| Name     | PKMYT1   |
| Synonyms | MYT1   |
| Function | Acts as a negative regulator of entry into mitosis (G2 to M transition) by phosphorylation of the CDK1 kinase specifically when CDK1 is complexed to cyclins (PubMed: <a href="#">10373560</a> , PubMed: <a href="#">10504341</a> , PubMed: <a href="#">9001210</a> , PubMed: <a href="#">9268380</a> ). Mediates phosphorylation of CDK1 predominantly on |

'Thr-14'. Also involved in Golgi fragmentation (PubMed:[9001210](#), PubMed:[9268380](#)). May be involved in phosphorylation of CDK1 on 'Tyr-15' to a lesser degree, however tyrosine kinase activity is unclear and may be indirect (PubMed:[9001210](#), PubMed:[9268380](#)).

## Cellular Location

Endoplasmic reticulum membrane; Peripheral membrane protein. Golgi apparatus membrane; Peripheral membrane protein

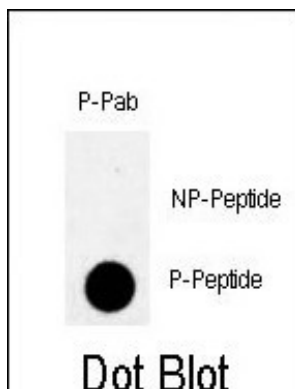
## Background

The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase preferentially phosphorylates and inactivates cell division cycle 2 protein (CDC2), and thus negatively regulates cell cycle G2/M transition. This kinase is associated with the membrane throughout the cell cycle. Its activity is highly regulated during the cell cycle. Protein kinases AKT1/PKB and PLK (Polo-like kinase) have been shown to phosphorylate and regulate the activity of this kinase. Alternatively spliced transcript variants encoding distinct isoforms have been reported.

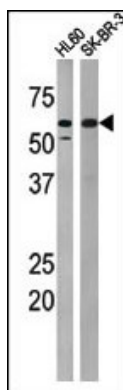
## References

Dai, X., et al., J. Invest. Dermatol. 122(6):1356-1364 (2004). Nakajima, H., et al., J. Biol. Chem. 278(28):25277-25280 (2003). Passer, B.J., et al., Proc. Natl. Acad. Sci. U.S.A. 100(5):2284-2289 (2003). Okumura, E., et al., Nat. Cell Biol. 4(2):111-116 (2002). Booher, R.N., et al., J. Biol. Chem. 272(35):22300-22306 (1997).

## Images

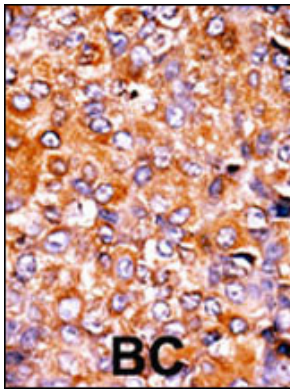


Dot blot analysis of anti-Phospho-MYT1-T495 Antibody (Cat. #AP3173a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.



The anti-Phospho-MYT1-T495 Antibody (Cat. #AP3173a) is used in Western blot to detect Phospho-MYT1-T495 in HL60 (left) and SK-BR-3 (right) tissue lysates.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use



of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

## Citations

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- [Polo-like kinase-1 is activated by aurora A to promote checkpoint recovery.](#)

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