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Phospho-MYT1(T495) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3173a

Specification

Phospho-MYT1(T495) Antibody - Product Information

Application	**WB, IHC-P, DB,E**
Primary Accession	Q99640
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-MYT1(T495) Antibody - Additional Information

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
WB~~1:1000
IHC-P~~1:50~100
DB~~1:500
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.

Phospho-MYT1(T495) Antibody - Protein Information

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:10373560, PubMed:10504341, PubMed:9001210, PubMed:9268380). 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).

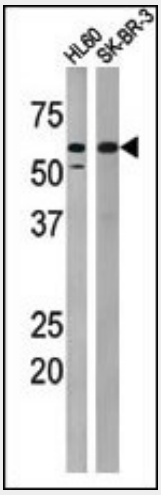
Cellular Location
Endoplasmic reticulum membrane; Peripheral membrane protein. Golgi apparatus membrane; Peripheral membrane protein

Phospho-MYT1(T495) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-MYT1(T495) Antibody - Images



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.

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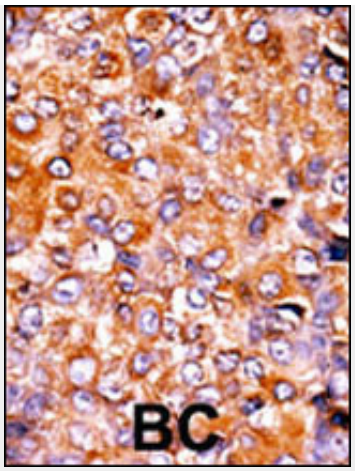
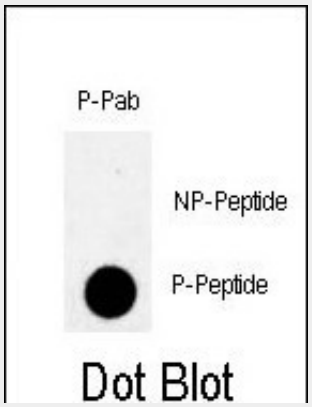


Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



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.

Phospho-MYT1(T495) Antibody - 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.

Phospho-MYT1(T495) Antibody - 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).

Phospho-MYT1(T495) Antibody - Citations

- Polo-like kinase-1 is activated by aurora A to promote checkpoint recovery.