

DYRK1B Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16734c

Specification

DYRK1B Antibody (Center) - Product Information

Application WB,E **Primary Accession** O9Y463 09Z188, NP 004705.1, NP 006474.1 Other Accession Reactivity Human Predicted Mouse Host Rabbit Clonality Polyclonal Isotype Rabbit IgG Calculated MW 69198 Antigen Region 377-405

DYRK1B Antibody (Center) - Additional Information

Gene ID 9149

Other Names

Dual specificity tyrosine-phosphorylation-regulated kinase 1B, Minibrain-related kinase, Mirk protein kinase, DYRK1B, MIRK

Target/Specificity

This DYRK1B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 377-405 amino acids from the Central region of human DYRK1B.

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 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

DYRK1B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DYRK1B Antibody (Center) - Protein Information

Name DYRK1B



Synonyms MIRK

Function Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activities. Plays an essential role in ribosomal DNA (rDNA) double-strand break repair and rDNA copy number maintenance (PubMed:<u>33469661</u>). During DNA damage, mediates transcription silencing in part via phosphorylating and enforcing DSB accumulation of the histone methyltransferase EHMT2 (PubMed:<u>32611815</u>). Enhances the transcriptional activity of TCF1/HNF1A and FOXO1. Inhibits epithelial cell migration. Mediates colon carcinoma cell survival in mitogen-poor environments. Inhibits the SHH and WNT1 pathways, thereby enhancing adipogenesis. In addition, promotes expression of the gluconeogenic enzyme glucose-6-phosphatase catalytic subunit 1 (G6PC1).

Cellular Location

Nucleus. Nucleus, nucleolus. Chromosome. Note=Localizes to sites of double-strand breaks (DSBs) following DNA damage.

Tissue Location

Highest expression in skeletal muscle, testis, heart and brain with little expression in colon or lung. Expressed in a variety of tumor cell lines.

DYRK1B Antibody (Center) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

DYRK1B Antibody (Center) - Images



DYRK1B Antibody (Center) (Cat. #AP16734c) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the DYRK1B antibody detected the DYRK1B protein (arrow).

DYRK1B Antibody (Center) - Background



DYRK1B is a member of the DYRK family of protein kinases. DYRK1B contains a bipartite nuclear localization signal and is found mainly in muscle and testis. The protein is proposed to be involved in the regulation of nuclear functions. Three isoforms of DYRK1B have been identified differing in the presence of two alternatively spliced exons within the catalytic domain. [provided by RefSeq].

DYRK1B Antibody (Center) - References

Lauth, M., et al. Nat. Struct. Mol. Biol. 17(6):718-725(2010) Yang, C., et al. Carcinogenesis 31(4):552-558(2010) Jin, K., et al. J. Biol. Chem. 284(34):22916-22925(2009) Deng, X., et al. Cancer Res. 69(8):3317-3324(2009) Janumyan, Y., et al. J. Biol. Chem. 283(49):34108-34120(2008)