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DYRK1A Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP7555c

Specification

DYRK1A Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q13627

DYRK1A Antibody (Center) Blocking Peptide - Additional Information

Gene ID 1859

Other Names
Dual specificity tyrosine-phosphorylation-regulated kinase 1A, Dual specificity YAK1-related kinase, HP86, Protein kinase minibrain homolog, MNBH, hMNB, DYRK1A, DYRK, MNB, MNBH

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7555c was selected from the Center region of human DYRK1A. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DYRK1A Antibody (Center) Blocking Peptide - Protein Information

DYRK1A Antibody (Center) Blocking Peptide - Background

DYRK1A is a member of the Dual-specificity tyrosine phosphorylation-regulated kinase (DYRK) family. This member contains a nuclear targeting signal sequence, a protein kinase domain, a leucine zipper motif, and a highly conservative 13-consecutive-histidine repeat. It catalyzes its autophosphorylation on serine/threonine and tyrosine residues. It may play a significant role in a signaling pathway regulating cell proliferation and may be involved in brain development. This gene is a homolog of Drosophila mnb (minibrain) gene and rat Dyrk gene. It is localized in the Down syndrome critical region of chromosome 21, and is considered to be a strong candidate gene for learning defects associated with Down syndrome.

DYRK1A Antibody (Center) Blocking Peptide - References

Adayev,T., Biochemistry 46 (25), 7614-7624 (2007)Chang,H.S., Int. J. Cancer 120 (11), 2377-2385 (2007)Alvarez,M., Mol. Biol. Cell 18 (4), 1167-1178 (2007)Wissing,J., Mol. Cell Proteomics 6 (3), 537-547 (2007)

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Name DYRK1A

Synonyms DYRK, MNB, MNBH

Function
Dual-specificity kinase which possesses both serine/threonine and tyrosine kinase activities. May play a role in a signaling pathway regulating nuclear functions of cell proliferation. Modulates alternative splicing by phosphorylating the splice factor SRSF6 (By similarity). Exhibits a substrate preference for proline at position P+1 and arginine at position P-3. Has pro-survival function and negatively regulates the apoptotic process. Promotes cell survival upon genotoxic stress through phosphorylation of SIRT1. This in turn inhibits TP53 activity and apoptosis (By similarity).

Cellular Location
Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:Q61214}

Tissue Location
Ubiquitous. Highest levels in skeletal muscle, testis, fetal lung and fetal kidney.

DYRK1A Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides