

DYRK1A Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7555a**Specification****DYRK1A Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q13627](#)**DYRK1A Antibody (N-term) 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 [AP7555a](/product/products/AP7555a) was selected from the N-term 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 (N-term) Blocking Peptide - Protein Information**DYRK1A Antibody (N-term) 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. The DYRK1A gene is a homolog of Drosophila *mnbr* (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 (N-term) 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)

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 (N-term) Blocking
Peptide - Protocols**

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

- [Blocking Peptides](#)