

# **DYRK1A Antibody (N-term)**

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7555a

## **Specification**

#### DYRK1A Antibody (N-term) - Product Information

Application WB, IHC-P,E Primary Accession 013627

Other Accession <u>Q2TAE3</u>, <u>Q63470</u>,

<u>061214</u>

Reactivity Human, Mouse Predicted Rat, Xenopus

Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig
Antigen Region 107-136

DYRK1A Antibody (N-term) - 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**

This DYRK1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 107-136 amino acids from the N-terminal region of human DYRK1A.

# **Dilution**

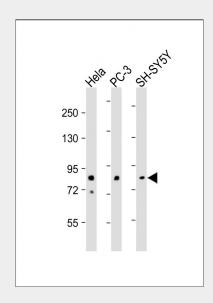
WB~~1:500-1:2000 IHC-P~~1:50~100

#### **Format**

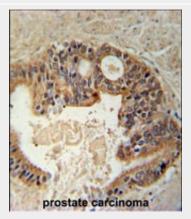
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

## **Storage**

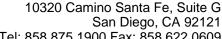
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw



All lanes: Anti-DYRK1A Antibody (N-term) at 1:500-1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: PC-3 whole cell lysate Lane 3: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 86 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



DYRK1A Antiboty (N-term) (Cat.#AP7555a) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DYRK1A Antiboty (N-term) for





Tel: 858.875.1900 Fax: 858.622.0609

cycles.

## **Precautions**

DYRK1A Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DYRK1A Antibody (N-term) - Protein Information

#### 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) - Protocols

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

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

immunohistochemistry. Clinical relevance has not been evaluated.

# DYRK1A Antibody (N-term) - 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 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 (N-term) - 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

Wissing, J., Mol. Cell Proteomics 6 (3), 537-547 (2007)