

Product name:	Dyrk1A Rabbit Polyclonal Antibody
Cat number:	ABN10234
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human DYR1A. AA range:21-70
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight:	90kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes 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. Alternative splicing of this gene generates several transcript variants differing from each other either in the 5' UTR or in the 3' coalternative products: Additional isoforms seem to exist, catalytic activity: $\text{ATP} + \text{a protein} = \text{ADP} + \text{a phosphoprotein}$, developmental stage: Expressed in the developing central nervous system, disease: Overexpressed 1.5-fold in fetal Down syndrome brain, enzyme regulation: Inhibited by RANBP9, function: May play a role in a signaling pathway regulating nuclear functions of cell proliferation. Phosphorylates serine, threonine and tyrosine residues in its sequence and in exogenous substrates, PTM: Autophosphorylated on tyrosine residues, similarity: Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MNB/DYRK subfamily, similarity: Contains 1 protein kinase domain, subunit: Interacts RAD54L2/ARIP4 (By similarity). Interacts with RANBP9, tissue specificity: Ubiquitous. Highest levels in skeletal muscle, testis, fetal lung and fetal kidney.