

Active Recombinant Rat Dyrk1a protein, GST-tagged

Cat. No. DYRK1A-1990R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Dyrk1a fused with GST tag at N-terminal was expressed in E. coli.
Species	Rat
Source	E.coli
Description	DYRK1 A or dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A is a member of the Dual-specificity tyrosine phosphorylation-regulated kinase (DYRK) family which contains a nuclear targeting signal sequence, a protein kinase domain, a leucine zipper motif, and a highly conservative 13-consecutive-histidine repeat. DYRK1A participates in various cellular processes. DYRK1A is a highly conserved gene located in the so-called Down Syndrome critical region (DSCR) on part of chromosome 21 that is responsible for the majority of phenotypic features in Down syndrome (1). DYRK1A plays a significant role in a signaling pathway regulating cell proliferation and may be involved in brain development. DYRK1A is also contributing to early onset of Alzheimer disease.
Form	50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	1200 nmol/min/mg
Molecular Mass	~100 kDa
Purity	>70%

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Applications	Kinase Assay, Western Blot
Stability	1 year at -70 centigrade from the date of shipment
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
GENE INFORMATION	
Gene Name	Dyrk1a dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A [<i>Rattus norvegicus</i>]
Official Symbol	Dyrk1a
Synonyms	DYRK1A; dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A; dual specificity tyrosine-phosphorylation-regulated kinase 1A; MNBH; RP86; protein kinase minibrain homolog; Dual Specificity Yak1-related kinase; Dyrk; PSK47;
Gene ID	25255
mRNA Refseq	NM_012791
Protein Refseq	NP_036923
UniProt ID	Q63470
Chromosome Location	11q11
Pathway	Hedgehog Signaling Pathway, organism-specific biosystem;

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Function

ATP binding; non-membrane spanning protein tyrosine kinase activity; non-membrane spanning protein tyrosine kinase activity; nucleotide binding; protein self-association; protein self-association; protein serine/threonine kinase activity; protein tyrosine kinase activity;

