

Bioactive

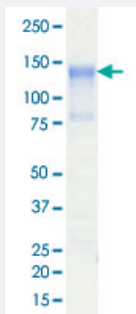
Full-Length

# DYRK1A (Human) Recombinant Protein

Catalog # P5539

Size 5 ug

## Applications



## Result of activity analysis

Result of activity analysis

□

## Specification

|                             |  |
|-----------------------------|--|
| <b>Product Description</b>  | Human DYRK1A (NP_001387.2, 1 a.a. - 763 a.a.) full-length recombinant protein with GST tag expressed in baculovirus infected Sf21 cells. |
| <b>Host</b>                 | insect   |
| <b>Theoretical MW (kDa)</b> | 112  |
| <b>Form</b>                 | Liquid   |
| <b>Preparation Method</b>   | Baculovirus infected insect cell (Sf21) expression system  |
| <b>Purification</b>         | Glutathione sepharose chromatography   |
| <b>Purity</b>               | 81 % by SDS-PAGE/CBB staining  |

|                         |   |
|-------------------------|---|
| Activity                | The activity was measured by off-chip mobility shift assay. The enzyme was incubated with fluorescence-labeled substrate and Mg(or Mn)/ATP. The phosphorylated and unphosphorylated substrates were separated and detected by LabChip 3000. Substrate: DYRKtide-F. ATP: 100 uM. |
| Quality Control Testing | Loading 1 ug protein in SDS-PAGE  |
| Storage Buffer          | In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.1% CHAPS, 1 mM DTT, 10% glycerol)   |
| Storage Instruction     | Store at -80°C.<br>Aliquot to avoid repeated freezing and thawing.  |
| Note                    | Result of activity analysis<br>Result of activity analysis  |

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — DYRK1A

|                    |   |
|--------------------|---|
| Entrez GeneID      | <a href="#">1859</a>  |
| Protein Accession# | <a href="#">NP_001387.2</a>   |
| Gene Name          | DYRK1A  |
| Gene Alias         | DYRK, DYRK1, HP86, MNB, MNBH  |
| Gene Description   | dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A   |
| Omim ID            | <a href="#">600855</a>  |
| Gene Ontology      | <a href="#">Hyperlink</a>   |
| Gene Summary       | 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' coding region. These variants encode at least five different isoforms. [provided by RefSeq] |

**Other Designations**

MNB/DYRK protein kinase|OTTHUMP00000109090|dual specificity YAK1-related kinase|minibra  
in homolog|mnb protein kinase homolog hp86|protein kinase minibrain homolog|serine/threonine  
kinase MNB|serine/threonine-specific protein kinase

**Disease**

- [Alzheimer Disease](#)
- [Genetic Predisposition to Disease](#)