

## Product datasheet for **TG304866**

### DYRK1A Human shRNA Plasmid Kit (Locus ID 1859)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	DYRK1A Human shRNA Plasmid Kit (Locus ID 1859)
Locus ID:	1859
Synonyms:	DYRK; DYRK1; HP86; MNB; MNBH; MRD7
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	DYRK1A - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 1859). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001396</a> , <a href="#">NM_101395</a> , <a href="#">NM_130436</a> , <a href="#">NM_130437</a> , <a href="#">NM_130438</a> , <a href="#">NM_001347721</a> , <a href="#">NM_001347722</a> , <a href="#">NM_001347723</a> , <a href="#">NM_001396.1</a> , <a href="#">NM_001396.2</a> , <a href="#">NM_001396.3</a> , <a href="#">NM_001396.4</a> , <a href="#">NM_130436.1</a> , <a href="#">NM_130436.2</a> , <a href="#">NM_130438.1</a> , <a href="#">NM_130438.2</a> , <a href="#">NM_101395.1</a> , <a href="#">NM_101395.2</a> , <a href="#">NM_130437.1</a> , <a href="#">BC030515</a> , <a href="#">BC045802</a> , <a href="#">BC065184</a> , <a href="#">BC156309</a> , <a href="#">BC172505</a>
UniProt ID:	<a href="#">Q13627</a>
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 <i>Drosophila mnb</i> (minibrain) gene and rat <i>Dyrk</i> 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, Jul 2008]



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- shRNA Design:** These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact [techsupport@origene.com](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- Performance Guaranteed:** OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.
- For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).