

## Product datasheet for TR313395

#### OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

### **DOCK3 Human shRNA Plasmid Kit (Locus ID 1795)**

#### **Product data:**

**Product Type:** shRNA Plasmids

**Product Name:** DOCK3 Human shRNA Plasmid Kit (Locus ID 1795)

Locus ID: 1795

MOCA; NEDIDHA; PBP Synonyms:

Vector: pRS (TR20003)

E. coli Selection: Ampicillin Mammalian Cell

Selection:

Puromycin

Format: Retroviral plasmids

DOCK3 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = Components:

1795). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

NM 004947, NM 004947.1, NM 004947.2, NM 004947.3, NM 004947.4, BC037933, BC045793, RefSeq:

BC131746, BC156339, BC157127, NM 004947.5

**UniProt ID:** O8IZD9

**Summary:** This gene is specifically expressed in the central nervous system (CNS). It encodes a member

> of the DOCK (dedicator of cytokinesis) family of guanine nucleotide exchange factors (GEFs). This protein, dedicator of cytokinesis 3 (DOCK3), is also known as modifier of cell adhesion (MOCA) and presenilin-binding protein (PBP). The DOCK3 and DOCK1, -2 and -4 share several conserved amino acids in their DHR-2 (DOCK homology region 2) domains that are required for GEF activity, and bind directly to WAVE proteins [Wiskott-Aldrich syndrome protein (WASP) family Verprolin-homologous proteins] via their DHR-1 domains. The DOCK3 induces axonal outgrowth in CNS by stimulating membrane recruitment of the WAVE complex and activating the small G protein Rac1. This gene is associated with an attention deficit

> hyperactivity disorder-like phenotype by a complex chromosomal rearrangement. [provided

by RefSeq, Aug 2010]

These shRNA constructs were designed against multiple splice variants at this gene locus. To shRNA Design:

> be certain that your variant of interest is targeted, please contact <u>techsupport@origene.com</u>. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).