

## **Product datasheet for TL505848**

## OriGene Technologies, Inc.

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## Ccdc88a Mouse shRNA Plasmid (Locus ID 108686)

**Product data:** 

**Product Type:** shRNA Plasmids

Product Name: Ccdc88a Mouse shRNA Plasmid (Locus ID 108686)

**Locus ID:** 108686

**Synonyms:** A430106J12Rik; AI848406; Ape; C130096N06Rik; C330012F17Rik; D130005J21Rik; Girdin; Giv

**Vector:** pGFP-C-shLenti (TR30023)

E. coli Selection: Chloramphenicol (34 ug/ml)

Mammalian Cell

Selection:

Puromycin

Format: Lentiviral plasmids

Components: Ccdc88a - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID =

108686). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.

RefSeq: NM 176841, NM 176841.1, NM 176841.2, NM 176841.3, NM 176841.4, BC037020, BC079895,

NM 001363368, NM 001363369, NM 176841.5

UniProt ID: Q5SNZ0

**Summary:** Plays a role as a key modulator of the AKT-mTOR signaling pathway controlling the tempo of

the process of newborn neurons integration during adult neurogenesis, including correct neuron positioning, dendritic development and synapse formation (PubMed:19778506). Enhances phosphoinositide 3-kinase (PI3K)-dependent phosphorylation and kinase activity of AKT1/PKB, but does not possess kinase activity itself (PubMed:15753085). Phosphorylation of

AKT1/PKB thereby induces the phosphorylation of downstream effectors GSK3 and FOXO1/FKHR, and regulates DNA replication and cell proliferation (PubMed:15753085). Essential for the integrity of the actin cytoskeleton and for cell migration (By similarity). Required for formation of actin stress fibers and lamellipodia (By similarity). May be involved in membrane sorting in the early endosome (By similarity). Plays a role in ciliogenesis and cilium morphology and positioning and this may partly be through regulation of the localization of scaffolding protein Crocc/Rootletin (By similarity). [UniProtKB/Swiss-Prot

Function]







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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="mailto:custom shRNA service">custom shRNA service</a>.

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).