

## **Product datasheet for TL304257**

## OriGene Technologies, Inc.

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## **GPR124 (ADGRA2) Human shRNA Plasmid Kit (Locus ID 25960)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** GPR124 (ADGRA2) Human shRNA Plasmid Kit (Locus ID 25960)

**Locus ID:** 25960

Synonyms: GPR124; TEM5

Vector: pGFP-C-shLenti (TR30023)

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

**Mammalian Cell** 

Selection:

Puromycin

Format: Lentiviral plasmids

Components: ADGRA2 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID =

25960). 5µg purified plasmid DNA per construct

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

**RefSeq:** NM 032777, NM 032777.2, NM 032777.3, NM 032777.4, NM 032777.5, NM 032777.6,

NM 032777.7, NM 032777.8, NM 032777.9, BC146774

UniProt ID: 096PE1

**Summary:** Endothelial receptor which functions together with RECK to enable brain endothelial cells to

selectively respond to Wnt7 signals (WNT7A or WNT7B) (PubMed:28289266,

PubMed:30026314). Plays a key role in Wnt7-specific responses, such as endothelial cell sprouting and migration in the forebrain and neural tube, and establishment of the bloodbrain barrier (By similarity). Acts as a Wnt7-specific coactivator of canonical Wnt signaling: required to deliver RECK-bound Wnt7 to frizzled by assembling a higher-order RECK-ADGRA2-Fzd-LRP5-LRP6 complex (PubMed:30026314). ADGRA2-tethering function does not rely on its G-protein coupled receptor (GPCR) structure but instead on its combined capacity to interact

with RECK extracellularly and recruit the Dishevelled scaffolding protein intracellularly (PubMed:30026314). Binds to the glycosaminoglycans heparin, heparin sulfate, chondroitin

sulfate and dermatan sulfate (PubMed:16982628).[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 <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our <u>custom shRNA service</u>.







## 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).