

## **Product datasheet for TR306713**

## OriGene Technologies, Inc.

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# Ankyrin brain (ANK2) Human shRNA Plasmid Kit (Locus ID 287)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Ankyrin brain (ANK2) Human shRNA Plasmid Kit (Locus ID 287)

Locus ID: 287

Synonyms: ANK-2; brank-2; CFAP87; FAP87; LQT4

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: ANK2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

287). 5µg purified plasmid DNA per construct

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

**RefSeq:** NM 001127493, NM 001148, NM 020977, NM 001354225, NM 001354228, NM 001354230,

NM 001354231, NM 001354232, NM 001354235, NM 001354236, NM 001354237, NM 001354239, NM 001354240, NM 001354241, NM 001354242, NM 001354243, NM 001354244, NM 001354245, NM 001354246, NM 001354249, NM 001354252, NM 001354253, NM 001354254, NM 001354255, NM 001354256, NM 001354257, NM 001354258, NM 001354260, NM 001354261, NM 001354262, NM 001354264, NM 001354265, NM 001354266, NM 001354267, NM 001354268, NM 001354269, NM 001354270, NM 001354271, NM 001354273, NM 001354274, NM 001354275, NM 001354275, NM 001354276, NM 001354276, NM 001354276, NM 001354277, NM 001354278, NM 001354279,

NM 001354280, NM 001354281, NM 001354282, NM 020977.3, NM 001148.2, NM 001148.3, NM 001148.4, NM 001127493.1, BC017986, BC047498, BC125235, BC125236, NM 001148.6,

NM 001127493.2, NM 020977.4

UniProt ID: 001484





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#### **Summary:**

This gene encodes a member of the ankyrin family of proteins that link the integral membrane proteins to the underlying spectrin-actin cytoskeleton. Ankyrins play key roles in activities such as cell motility, activation, proliferation, contact and the maintenance of specialized membrane domains. Most ankyrins are typically composed of three structural domains: an amino-terminal domain containing multiple ankyrin repeats; a central region with a highly conserved spectrin binding domain; and a carboxy-terminal regulatory domain which is the least conserved and subject to variation. The protein encoded by this gene is required for targeting and stability of Na/Ca exchanger 1 in cardiomyocytes. Mutations in this gene cause long QT syndrome 4 and cardiac arrhythmia syndrome. Multiple transcript variants encoding different isoforms have been described. [provided by RefSeq, Dec 2011]

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).