

## Product datasheet for **TR306818**

### gamma Adducin (ADD3) Human shRNA Plasmid Kit (Locus ID 120)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	gamma Adducin (ADD3) Human shRNA Plasmid Kit (Locus ID 120)
Locus ID:	120
Synonyms:	ADDL; CPSQ3
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	ADD3 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 120). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001121</a> , <a href="#">NM_016824</a> , <a href="#">NM_019903</a> , <a href="#">NM_001320591</a> , <a href="#">NM_001320592</a> , <a href="#">NM_001320593</a> , <a href="#">NM_001320594</a> , <a href="#">NM_016824.1</a> , <a href="#">NM_016824.2</a> , <a href="#">NM_016824.3</a> , <a href="#">NM_016824.4</a> , <a href="#">NM_001121.2</a> , <a href="#">NM_001121.3</a> , <a href="#">NM_019903.1</a> , <a href="#">NM_019903.2</a> , <a href="#">NM_019903.3</a> , <a href="#">BC062559</a> , <a href="#">BC062559.1</a> , <a href="#">BC021694</a> , <a href="#">BC043143</a> , <a href="#">BC057285</a> , <a href="#">NM_019903.5</a> , <a href="#">NM_001121.4</a> , <a href="#">NM_016824.5</a>
UniProt ID:	<a href="#">Q9UEY8</a>



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- Summary:** Adducins are heteromeric proteins composed of different subunits referred to as adducin alpha, beta and gamma. The three subunits are encoded by distinct genes and belong to a family of membrane skeletal proteins involved in the assembly of spectrin-actin network in erythrocytes and at sites of cell-cell contact in epithelial tissues. While adducins alpha and gamma are ubiquitously expressed, the expression of adducin beta is restricted to brain and hematopoietic tissues. Adducin, originally purified from human erythrocytes, was found to be a heterodimer of adducins alpha and beta. Polymorphisms resulting in amino acid substitutions in these two subunits have been associated with the regulation of blood pressure in an animal model of hypertension. Heterodimers consisting of alpha and gamma subunits have also been described. Structurally, each subunit is comprised of two distinct domains. The amino-terminal region is protease resistant and globular in shape, while the carboxy-terminal region is protease sensitive. The latter contains multiple phosphorylation sites for protein kinase C, the binding site for calmodulin, and is required for association with spectrin and actin. Alternatively spliced adducin gamma transcripts encoding different isoforms have been described. The functions of the different isoforms are not known. [provided by RefSeq, Jul 2008]
- 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).