

## Product datasheet for **TR316553**

### GCSH Human shRNA Plasmid Kit (Locus ID 2653)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	GCSH Human shRNA Plasmid Kit (Locus ID 2653)
Locus ID:	2653
Synonyms:	GCE; NKH
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GCSH - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 2653). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_004483</a> , <a href="#">NR_033249</a> , <a href="#">NM_004483.1</a> , <a href="#">NM_004483.2</a> , <a href="#">NM_004483.3</a> , <a href="#">NM_004483.4</a> , <a href="#">BC020922</a> , <a href="#">BC020922.1</a> , <a href="#">BC000790</a> , <a href="#">BC009065</a> , <a href="#">NM_004483.5</a>
UniProt ID:	<a href="#">P23434</a>
Summary:	Degradation of glycine is brought about by the glycine cleavage system, which is composed of four mitochondrial protein components: P protein (a pyridoxal phosphate-dependent glycine decarboxylase), H protein (a lipoic acid-containing protein), T protein (a tetrahydrofolate-requiring enzyme), and L protein (a lipoamide dehydrogenase). The protein encoded by this gene is the H protein, which transfers the methylamine group of glycine from the P protein to the T protein. Defects in this gene are a cause of nonketotic hyperglycinemia (NKH). Two transcript variants, one protein-coding and the other probably not protein-coding, have been found for this gene. Also, several transcribed and non-transcribed pseudogenes of this gene exist throughout the genome.[provided by RefSeq, Jan 2010]
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="#">custom shRNA service</a> .



[View online »](#)

**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).