

## Product datasheet for **TR312587**

### **GSTA4 Human shRNA Plasmid Kit (Locus ID 2941)**

#### **Product data:**

Product Type:	shRNA Plasmids
Product Name:	GSTA4 Human shRNA Plasmid Kit (Locus ID 2941)
Locus ID:	2941
Synonyms:	GSTA4-4; GTA4
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	GSTA4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 2941). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001512</a> , <a href="#">NM_001512.1</a> , <a href="#">NM_001512.2</a> , <a href="#">NM_001512.3</a> , <a href="#">BC015523</a> , <a href="#">BC015523.2</a> , <a href="#">BC063439</a> , <a href="#">BC096817</a> , <a href="#">NM_001512.4</a>
UniProt ID:	<a href="#">O15217</a>
Summary:	Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. These enzymes are involved in cellular defense against toxic, carcinogenic, and pharmacologically active electrophilic compounds. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase belonging to the alpha class. The alpha class genes, which are located in a cluster on chromosome 6, are highly related and encode enzymes with glutathione peroxidase activity that function in the detoxification of lipid peroxidation products. Reactive electrophiles produced by oxidative metabolism have been linked to a number of degenerative diseases including Parkinson's disease, Alzheimer's disease, cataract formation, and atherosclerosis. [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 <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> .



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**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).