

## **Product datasheet for TL312589V**

#### OriGene Technologies, Inc.

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### **GSTA2 Human shRNA Lentiviral Particle (Locus ID 2939)**

#### **Product data:**

**Product Type:** shRNA Lentiviral Particles

**Product Name:** GSTA2 Human shRNA Lentiviral Particle (Locus ID 2939)

**Locus ID:** 2939

Synonyms: GST2; GSTA2-2; GTA2; GTH2

Vector: pGFP-C-shLenti (TR30023)

Format: Lentiviral particles

**Components:** GSTA2 - Human shRNA lentiviral particles (4 unique 29mer target-specific shRNA, 1 scramble

control), 0.5 ml each, >10^7 TU/ml.

RefSeq: NM 000846, NM 000846.1, NM 000846.2, NM 000846.3, NM 000846.4, BC002895,

BC002895.2

UniProt ID: P09210

Summary: Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two

distinct supergene families. These enzymes function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding these enzymes are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of some drugs. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione Stransferases 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, located in a cluster mapped to chromosome 6, are the most abundantly expressed

glutathione S-transferases in liver. In addition to metabolizing bilirubin and certain anticancer drugs in the liver, the alpha class of these enzymes exhibit glutathione peroxidase activity thereby protecting the cells from reactive oxygen species and the products of

peroxidation. [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 <u>techsupport@origene.com</u>. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).