

Product datasheet for TR306471

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

B3GALNT1 Human shRNA Plasmid Kit (Locus ID 8706)

Product data:

Product Type: shRNA Plasmids

Product Name: B3GALNT1 Human shRNA Plasmid Kit (Locus ID 8706)

Locus ID: 8706

Synonyms: B3GALT3; beta3Gal-T3; galT3; Gb4Cer; GLCT3; GLOB; P; P1

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: B3GALNT1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID

= 8706). 5µg purified plasmid DNA per construct

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

RefSeq: NM 001038628, NM 003781, NM 033167, NM 033168, NM 033169, NM 001349130,

NM 001349131, NM 001349132, NM 001349133, NM 001349134, NM 001349135, NM 001349136, NM 001349137, NM 001349138, NM 001349139, NM 001349140, NM 001349141, NM 001349142, NM 001349143, NM 001349144, NM 001349145, NM 001349146, NM 001349147, NM 001349148, NM 001349149, NM 001349150, NM 001349151, NM 001349152, NM 001349153, NM 001349154, NM 001349155, NM 001349156, NM 001349157, NM 001349158, NM 001349159, NM 001349160,

NM 001349161, NM 001349162, NM 001349163, NM 033167.1, NM 033168.1, NM 033168.2, NM 033169.1, NM 033169.2, NM 003781.1, NM 003781.2, NM 003781.3, NM 001038628.1,

BC028571, BC028571.1, BC047618, NM 003781.4

UniProt ID: 075752





Summary:

This gene is a member of the beta-1,3-galactosyltransferase (beta3GalT) gene family. This family encodes type II membrane-bound glycoproteins with diverse enzymatic functions using different donor substrates (UDP-galactose and UDP-N-acetylglucosamine) and different acceptor sugars (N-acetylglucosamine, galactose, N-acetylgalactosamine). The beta3GalT genes are distantly related to the Drosophila Brainiac gene and have the protein coding sequence contained in a single exon. The beta3GalT proteins also contain conserved sequences not found in the beta4GalT or alpha3GalT proteins. The carbohydrate chains synthesized by these enzymes are designated as type 1, whereas beta4GalT enzymes synthesize type 2 carbohydrate chains. The ratio of type 1:type 2 chains changes during embryogenesis. By sequence similarity, the beta3GalT genes fall into at least two groups: beta3GalT4 and 4 other beta3GalT genes (beta3GalT1-3, beta3GalT5). The encoded protein of this gene does not use N-acetylglucosamine as an acceptor sugar at all. [provided by RefSeq, Mar 2017]

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 <u>custom shRNA service</u>.

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).