

Product datasheet for TR313794

OriGene Technologies, Inc.

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Collagen IV (COL4A4) Human shRNA Plasmid Kit (Locus ID 1286)

Product data:

Product Type: shRNA Plasmids

Product Name: Collagen IV (COL4A4) Human shRNA Plasmid Kit (Locus ID 1286)

Locus ID: 1286

Synonyms: ATS2; BFH; CA44

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Selection:

Puromycin

Format:

Retroviral plasmids

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Components: COL4A4 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

1286). 5µg purified plasmid DNA per construct

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

RefSeq: NM 000092, NM 000092.1, NM 000092.2, NM 000092.3, NM 000092.4, BC065843,

NM 000092.5

UniProt ID: P53420

Summary: This gene encodes one of the six subunits of type IV collagen, the major structural

component of basement membranes. This particular collagen IV subunit, however, is only found in a subset of basement membranes. Like the other members of the type IV collagen gene family, this gene is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter. Mutations in this gene are

associated with type II autosomal recessive Alport syndrome (hereditary

glomerulonephropathy) and with familial benign hematuria (thin basement membrane disease). Two transcripts, differing only in their transcription start sites, have been identified for this gene and, as is common for collagen genes, multiple polyadenylation sites are found

in the 3' UTR. [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 <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).