

## Product datasheet for **TR316501**

### Collagen IV (COL4A3) Human shRNA Plasmid Kit (Locus ID 1285)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Collagen IV (COL4A3) Human shRNA Plasmid Kit (Locus ID 1285)
Locus ID:	1285
Synonyms:	ATS2; ATS3
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	COL4A3 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 1285). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_000091</a> , <a href="#">NM_031362</a> , <a href="#">NM_031363</a> , <a href="#">NM_031364</a> , <a href="#">NM_031365</a> , <a href="#">NM_031366</a> , <a href="#">NM_000091.1</a> , <a href="#">NM_000091.2</a> , <a href="#">NM_000091.3</a> , <a href="#">NM_000091.4</a> , <a href="#">NM_031362.1</a> , <a href="#">NM_031366.1</a> , <a href="#">NM_031362.2</a> , <a href="#">NM_031363.1</a> , <a href="#">NM_031365.2</a> , <a href="#">NM_031366.2</a> , <a href="#">BC156138</a> , <a href="#">BM670570</a> , <a href="#">BM712932</a> , <a href="#">NM_000091.5</a>
UniProt ID:	<a href="#">Q01955</a>
Summary:	Type IV collagen, the major structural component of basement membranes, is a multimeric protein composed of 3 alpha subunits. These subunits are encoded by 6 different genes, alpha 1 through alpha 6, each of which can form a triple helix structure with 2 other subunits to form type IV collagen. This gene encodes alpha 3. In the Goodpasture syndrome, autoantibodies bind to the collagen molecules in the basement membranes of alveoli and glomeruli. The epitopes that elicit these autoantibodies are localized largely to the non-collagenous C-terminal domain of the protein. A specific kinase phosphorylates amino acids in this same C-terminal region and the expression of this kinase is upregulated during pathogenesis. This gene is also linked to an autosomal recessive form of Alport syndrome. The mutations contributing to this syndrome are also located within the exons that encode this C-terminal region. 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. [provided by RefSeq, Jun 2010]



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<b>shRNA Design:</b>	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> .
<b>Performance Guaranteed:</b>	<p>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.</p> <p>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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).</p>