

## Product datasheet for **TR312404**

### HLA-DRB1 Human shRNA Plasmid Kit (Locus ID 3123)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	HLA-DRB1 Human shRNA Plasmid Kit (Locus ID 3123)
Locus ID:	3123
Synonyms:	DRB1; HLA-DR1B; HLA-DRB; SS1
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	HLA-DRB1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 3123). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC007920</a> , <a href="#">BC008403</a> , <a href="#">BC024269</a> , <a href="#">BC033827</a> , <a href="#">NM_001243965</a> , <a href="#">NM_002124</a> , <a href="#">NM_001359193</a> , <a href="#">NM_001359194</a> , <a href="#">NM_002124.1</a> , <a href="#">NM_002124.2</a> , <a href="#">NM_002124.3</a> , <a href="#">NM_001243965.1</a> , <a href="#">BC007920.2</a> , <a href="#">BC024269.1</a> , <a href="#">BC033827.1</a> , <a href="#">BC018832</a> , <a href="#">BC018834</a> , <a href="#">BC018835</a> , <a href="#">BC031023</a> , <a href="#">BC108922</a> , <a href="#">BM671866</a>
UniProt ID:	<a href="#">P04229</a>
Summary:	HLA-DRB1 belongs to the HLA class II beta chain paralogs. The class II molecule is a heterodimer consisting of an alpha (DRA) and a beta chain (DRB), both anchored in the membrane. It plays a central role in the immune system by presenting peptides derived from extracellular proteins. Class II molecules are expressed in antigen presenting cells. The beta chain is approximately 26-28 kDa. It is encoded by 6 exons. Exon one encodes the leader peptide; exons 2 and 3 encode the two extracellular domains; exon 4 encodes the transmembrane domain; and exon 5 encodes the cytoplasmic tail. Within the DR molecule the beta chain contains all the polymorphisms specifying the peptide binding specificities. Hundreds of DRB1 alleles have been described and some alleles have increased frequencies associated with certain diseases or conditions. For example, DRB1*1302 has been related to acute and chronic hepatitis B virus persistence. There are multiple pseudogenes of this gene. [provided by RefSeq, Jul 2020]



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**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 [techsupport@origene.com](mailto:techsupport@origene.com). 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](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).