

## Product datasheet for **TR319941**

### Complement C4B (C4B) Human shRNA Plasmid Kit (Locus ID 721)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Complement C4B (C4B) Human shRNA Plasmid Kit (Locus ID 721)
Locus ID:	721
Synonyms:	basic C4; C4B1; C4B2; C4B3; C4B5; C4B12; C4F; C4F, CO4, C4B1, C4B3, CPAMD3; CH; Chido form of C4; CO4; complement C4B1a; complement component 4B; complement component 4B (Chido blood group); CPAMD3; FLJ60561; MGC164979; OTTHUMP00000029269
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	C4B - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 721). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_000592</a> , <a href="#">NM_001002029</a> , <a href="#">NM_001002029.1</a> , <a href="#">NM_001002029.2</a> , <a href="#">NM_001002029.3</a> , <a href="#">BC172377</a> , <a href="#">BM672834</a> , <a href="#">NM_001002029.4</a>
UniProt ID:	<a href="#">P0C0L4</a>
Summary:	This gene encodes the basic form of complement factor 4, and together with the C4A gene, is part of the classical activation pathway. The protein is expressed as a single chain precursor which is proteolytically cleaved into a trimer of alpha, beta, and gamma chains prior to secretion. The trimer provides a surface for interaction between the antigen-antibody complex and other complement components. The alpha chain may be cleaved to release C4 anaphylatoxin, a mediator of local inflammation. Deficiency of this protein is associated with systemic lupus erythematosus. This gene localizes to the major histocompatibility complex (MHC) class III region on chromosome 6. Varying haplotypes of this gene cluster exist, such that individuals may have 1, 2, or 3 copies of this gene. In addition, this gene exists as a long form and a short form due to the presence or absence of a 6.4 kb endogenous HERV-K retrovirus in intron 9. [provided by RefSeq, May 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).