

Product datasheet for **TR704728**

Atp8b1 Rat shRNA Plasmid (Locus ID 291555)

Product data:

Product Type: shRNA Plasmids

Locus ID: 291555

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Selection: Puromycin

Format: Retroviral plasmids

Components: Atp8b1 – Rat, 4 unique 29mer shRNA constructs in retroviral untagged vector (Gene ID = 291555). 5µg purified plasmid DNA per construct
29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: [NM_001106140](#), [NM_001106140.1](#)

Summary: Catalytic component of a P4-ATPase flippase complex which catalyzes the hydrolysis of ATP coupled to the transport of phospholipids, in particular phosphatidylcholines (PC), from the outer to the inner leaflet of the plasma membrane (PubMed:19027009) (By similarity). May participate in the establishment of the canalicular membrane integrity by ensuring asymmetric distribution of phospholipids in the canicular membrane. Thus may have a role in the regulation of bile acids transport into the canaliculus, uptake of bile acids from intestinal contents into intestinal mucosa or both and protect hepatocytes from bile salts (PubMed:19027009). Involved in the microvillus formation in polarized epithelial cells; the function seems to be independent from its flippase activity. Participates in correct apical membrane localization of CDC42, CFTR and SLC10A2 (By similarity). Enables CDC42 clustering at the apical membrane during enterocyte polarization through the interaction between CDC42 polybasic region and negatively charged membrane lipids provided by ATP8B1 (By similarity). Together with TMEM30A is involved in uptake of the synthetic drug alkylphospholipid perifosine (By similarity). Required for the preservation of cochlear hair cells in the inner ear. May act as cardiolipin transporter during inflammatory injury (By similarity). [UniProtKB/Swiss-Prot Function]



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. 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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).