

## Product datasheet for **TL501020**

### Htr2b Mouse shRNA Plasmid (Locus ID 15559)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Htr2b Mouse shRNA Plasmid (Locus ID 15559)
Locus ID:	15559
Synonyms:	5-HT2B; AJ012488; AV377389
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Htr2b - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 15559). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">BC023690</a> , <a href="#">NM_008311</a> , <a href="#">NM_008311.1</a> , <a href="#">NM_008311.2</a> , <a href="#">NM_008311.3</a>
UniProt ID:	<a href="#">Q02152</a>



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**Summary:**

G-protein coupled receptor for 5-hydroxytryptamine (serotonin) (PubMed:1426253). Also functions as a receptor for various ergot alkaloid derivatives and psychoactive substances (PubMed:1426253, PubMed:16940156). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors. Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways. Signaling activates a phosphatidylinositol-calcium second messenger system that modulates the activity of phosphatidylinositol 3-kinase and downstream signaling cascades and promotes the release of Ca(2+) ions from intracellular stores (By similarity). Plays a role in the regulation of dopamine and 5-hydroxytryptamine release, 5-hydroxytryptamine uptake and in the regulation of extracellular dopamine and 5-hydroxytryptamine levels, and thereby affects neural activity (PubMed:16940156, PubMed:18337424). May play a role in the perception of pain (PubMed:21273425). Plays a role in the regulation of behavior, including impulsive behavior (PubMed:21179162). Required for normal proliferation of embryonic cardiac myocytes and normal heart development (PubMed:10944220, PubMed:11413089). Protects cardiomyocytes against apoptosis (PubMed:12738797). Plays a role in the adaptation of pulmonary arteries to chronic hypoxia (PubMed:12244304). Plays a role in vasoconstriction (PubMed:12244304, PubMed:23346101). Required for normal osteoblast function and proliferation, and for maintaining normal bone density (PubMed:17846081). Required for normal proliferation of the interstitial cells of Cajal in the intestine (PubMed:19941613). [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](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).