# pTAL-Luc

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| **Vector ID** | V011578 |
| **Antibiotic Resistance** | Ampicillin |
| **Length** | 4956 bp |
| **Vector Type** | Promoter enhancer reporter vector |

## Product Information

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| **Replication Origin** | ori |
| **Promoter** | TATA-like box |
| **Comment** | pTAL-Luc is designed for analyzing enhancer sequences by assaying for expression of the firefly luciferase (luc) gene from Photinus pyralis (1). This vector contains a TATA-like promoter (PTAL) region from the Herpes simplex virus thymidine kinase (HSV-TK) promoter. Putative enhancers can be inserted into one of the MCSs. The luciferase coding sequence is followed by the SV40 late polyadenylation signal to ensure proper, efficient processing of the luc transcript in eukaryotic cells. Located upstream of the MCS is a synthetic transcription blocker (TB), which is composed of adjacent polyadenylation and transcription pause sites for reducing background transcription (2). The vector backbone also contains an f1 origin for single-stranded DNA production, a pUC origin of replication, and an ampicillin resistance gene for propagation and selection in E. coli.pTAL-Luc is ideal for use as a negative control or for studying putative enhancers that are inserted upstream of the luciferase reporter gene. Luciferase is a highly sensitive enzymatic reporter that can be assayed by any standard luciferase-detection method, providing quantitative data on induction levels. The pTAL-Luc Vector can be transfected into mammalian cells by any standard method. For selecting stable clones, cotransfect with a vector containing an antibiotic resistance gene, such as neomycin, hygromycin or puromycin. |

## Vector Map



## Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.