**pCrU6.4-SaPSY1/aphVIII (pPH331)**

Deposited by Andre Greiner, Peter Hegemann lab, Humboldt-University Berlin, October 2017

Vector for guide RNA targeting the phytoene synthase gene *PSY1* with scaffold for *Staphylococcus aureus* Cas9 (SaCas9), controlled by the U6 snRNA promoter #4. Vector contains an *aphVIII* cassette for selection on paromomycin.

Target: *PSY1* ([Cre02.g095092](https://phytozome.jgi.doe.gov/pz/portal.html#!gene?search=1&detail=1&method=4614&searchText=transcriptid:30785417))

Protospacer: GCGCTGGATCTGGCCACGACCG

PAM: NGGRR

Selection in *C. reinhardtii*: paromomycin

Selection in *E.coli*: ampicillin

host strain: DH5α

Sequence map: <https://benchling.com/s/seq-MsLOs4rE4YFL47tnpKhH>

**Reference**

Greiner, A., Kelterborn, S., Evers, H., Kreimer, G., Sizova, I., and Hegemann, P.Targeting of photoreceptor genes via zinc-finger nucleases and CRISPR/Cas9 in *Chlamydomonas reinhardtii.* Plant Cell 30 (2017). <https://doi.org/10.1105/tpc.17.00659>

**Overview of all CRISPR/Cas9 plasmids from the Hegemann lab**

<https://www.chlamycollection.org/hegemann_lab>

Visit [www.chlamy.de](http://www.chlamy.de) for more info or contact CRISPR@chlamy.de