

Resource Summary Report

Generated by [RRID](#) on Aug 19, 2026

RCH1:HDT1,HDT2-RNAi

RRID:Addgene_108446

Type: Plasmid

Proper Citation

RRID:Addgene_108446

Plasmid Information

URL: <http://www.addgene.org/108446>

Proper Citation: RRID:Addgene_108446

Insert Name: HDT1

Organism: Arabidopsis thaliana

Bacterial Resistance: Spectinomycin

Defining Citation: [PMID:28855334](#)

Vector Backbone Description: Vector Backbone:pK7GWIWG2; Vector Types:Plant Expression, RNAi; Bacterial Resistance:Spectinomycin

Comments: Full sequence is not available for this plasmid. Please see the diagnostic digest and partial sequencing results as references for verification To build the pRCH1:HDT1HDT2 RNAi construct (hdt1,2i), the CaMV 35S promoter in pK7GWIWG2 vector (Limpens et al., 2005) was replaced with RCH1 promoter [pK7GWIWG2(II)]. The RCH1 promoter was first amplified on genomic DNA and cloned into pENTR-D-TOPO. Then it was cut out from the vector by HindIII (partial digestion) and XbaI and recombined with two fragments of the pK7GWIWG2(II) vector in a three-point ligation. The two fragments of pK7GWIWG2(II) vector were obtained by digestion either with HindII and NcoI, or with SpeI (compatible with XbaI) and HindIII. The whole RNAi cassette including the RCH1 promoter was cut out from the vector using ApaI and HindIII and ligated into the pBnRGW binary vector digested with the same enzymes and in such way creating pBnRRGWIWG vector. The RNAi target sequences of HDT1 and HDT2 coding sequences (0.6 kb for each) were combined in one amplicon using a two-step PCR, following the procedure described by Franssen et al. (2015). In brief, the first step PCRs introduced short overlaps (15 bp) in PCR fragments of HDT1 and HDT2 coding sequences with HDT1rnai-F and HDT1rnai-R primers, or with HDT2rnai-F and HDT2rnai-R primers. These two fragments were used as templates in the second-step PCR with HDT1rnai-F and HDT2rnai-R primers. The final PCR fragment was introduced into pENTR-D-TOPO vector

and recombined in inverse-repeat orientation into the pBnRRGWIWG binary vector by a LR Gateway reaction (Invitrogen).

Plasmid Name: RCH1:HDT1,HDT2-RNAi

Record Creation Time: 20220422T221526+0000

Record Last Update: 20260815T080120+0000

Ratings and Alerts

No rating or validation information has been found for RCH1:HDT1,HDT2-RNAi.

No alerts have been found for RCH1:HDT1,HDT2-RNAi.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.