



# Golden Gate TALEN Kit

**Description:** TALENs are important new tools for genome engineering. Fusions of transcription activator-like (TAL) effectors of plant pathogenic *Xanthomonas* spp. to the FokI nuclease, TALENs bind and cleave DNA in pairs. Binding specificity is determined by customizable arrays of polymorphic amino acid repeats in the TAL effectors. This collection and accompanying documentation allow one to efficiently assembling TALEN constructs with custom repeat arrays, containing anywhere between 12 and 31 of these repeats. The reagents include a plasmid construct for making custom TAL effectors and one for TAL effector fusions to additional proteins of interest. The web based software which allows one to search for TAL binding sites is located at: <http://boglabx.plp.iastate.edu/TALENT/>

More information can be found at:  
[www.addgene.org/talen](http://www.addgene.org/talen)

**Reference:** Efficient design and assembly of custom TALEN and other TAL effector-based constructs for DNA targeting. Cermak T, Doyle EL, Christian M, Wang L, Zhang Y, Schmidt C, Baller JA, Somia NV, Bogdanove AJ, Voytas DF. *Nucleic Acids Res.* 2011 Apr 14.

**Handling and Storage:** Store glycerol stocks at -80°C and minimize freeze-thaw cycles. To access a plasmid, keep the plate on dry ice to prevent thawing. Using a sterile pipette tip, puncture the seal above an individual well and spread a portion of the glycerol stock onto an agar plate. To patch the hole, use sterile tape or a portion of a fresh aluminum seal.

**Note:** These plasmid constructs are being distributed to non-profit institutions for the purpose of basic research.

Please contact Addgene at [help@addgene.org](mailto:help@addgene.org) with any questions.

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## Plate Map

	1	2	3	4	5	6	7	8	9	10	11	12
A	pHD1	pHD2	pHD3	pHD4	pHD5	pHD6	pHD7	pHD8	pHD9	pHD10	pNG1	pNG2
B	pNG3	pNG4	pNG5	pNG6	pNG7	pNG8	pNG9	pNG10	pNI1	pNI2	pNI3	pNI4
C	pNI5	pNI6	pNI7	pNI8	pNI9	pNI10	pNN1	pNN2	pNN3	pNN4	pNN5	pNN6
D	pNN7	pNN8	pNN9	pNN10	pNK1	pNK2	pNK3	pNK4	pNK5	pNK6	pNK7	pNK8
E	pNK9	pNK10	pLR-HD	pLR-NG	pLR-NI	pLR-NN	pFUS_B1	pFUS_B2	pFUS_B3	pFUS_B4	pFUS_B5	pFUS_B6
F	pFUS_B7	pFUS_B8	pFUS_B9	pFUS_B10	pFUS_A	pFUS_A30A	pFUS_A30B	pTAL1	pTAL2	pTAL3	pTAL4	pKEB31
G												
H												

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Please visit <http://www.addgene.org/TALeffector/goldengate/voytas/> for plasmid information.

## How to Cite your Addgene Plasmids in Future Publications (Save for reference)

These plasmids were created by your colleagues. Please acknowledge the Principal Investigator, cite the article in which they were created, and include Addgene in the Materials and Methods of your future publications.

### Information pertinent to your requested plasmids:

*Principal Investigators:* Dan Voytas, Adam Bogdanove

*Article Reference:* **Efficient design and assembly of custom TALEN and other TAL effector-based constructs for DNA targeting.** Cermak T, Doyle EL, Christian M, Wang L, Zhang Y, Schmidt C, Baller JA, Somia NV, Bogdanove AJ, Voytas DF. Nucleic Acids Res. 2011 Apr 14. (Pubmed ID: 21493687)

*Addgene:* Golden Gate TALEN and TAL Effector Kit

If you have any questions about how to cite these plasmids, please contact Addgene at [help@addgene.org](mailto:help@addgene.org) or call (617) 225-9000.

Best wishes for many successful publications!

