



Wolfe-Lawson ZFN modular assembly kit

Description: Zinc-finger nucleases (ZFNs) allow targeted gene inactivation in a wide range of model organisms. We provided an archive of 81 clones containing 27 different zinc-finger modules at finger 1, 2 and 3 positions for straightforward construction of ZFNs using modular assembly-based approach. The majority of zinc-finger proteins assembled from these modules have favorable specificities and nearly one-third of modular ZFNs generated lesions at their targets in the zebra fish genome. These modules are designed for the construction of three-finger zinc-finger ZFNs, but they can also be used for assembling longer ZFNs containing 4 or more modules. We set up a website to help users search appropriate sites in their target sequences and design corresponding ZFNs using this archive:

<http://pgfe.umassmed.edu/ZFPmodularsearch.html>

More information can be found at:

www.addgene.org/Wolfe-Lawson_ZFN/

Reference: **Evaluation and application of modularly assembled zinc finger nucleases in zebrafish.** Zhu C, Smith T, McNulty J, Rayla AL, Lakshmanan A, Siekmann AF, Buffardi M, Meng X, Shin J, Padmanabhan A, Cifuentes D, Giraldez AJ, Look AT, Epstein JA, Lawson ND, and Wolfe SA. *Development*, 2011, 138:4555-4564.

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 with any questions.

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Plate Map

	1	2	3	4	5	6	7	8	9	10	11	12
A	F1-AAG	F1-ACG	F1-AGG	F1-ATG	F1-CAG-F2-GAC	F1-CGG	F1-GAA	F1-GAC	F1-GAG-F2-GAG-F3-AAG	F2-GAA	F1-GCA	F1-GCC
B	F1-GCG	F1-GCT	F1-GGA-F2-GTG-F3-TTG	F1-GGC	F1-GGG	F1-GGT-F3-CAG	F1-GTA	F1-GTC	F1-GTG-F2-GGT-F3-GAA	F1-GTT	F1-TAG	F1-TGG-F3-GGG
C	F1-TGT	F1-TTG	F2-AAG	F2-ACG	F2-AGG	F2-ATG	F2-CAG	F2-CGG	F2-GAT	F2-GCA	F2-GCC	F2-GCG
D	F2-GCT	F2-GGA	F2-GGC	F3-GAG	F2-GTA	F2-GTC	F2-GTT-F3-GGC	F2-TAG	F2-TGG	F2-TGT	F2-TTG	F3-ACG
E	F3-AGG	F3-ATG	F3-CGG	F3-GAC	F3-GAT	F3-GCC	F3-GCT	F3-GGA	F3-GGT	F3-GTA	F3-GTC	F3-GTG
F	F3-GTT	F3-TAG	F3-TGG	F3-TGT	F3-GCG	F2-GGG	F1-GAT	F3-GCA	F1-AGA	F2-AGA	F3-AGA	
G												
H												

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