

Resource Summary Report

Generated by [RRID](#) on Aug 20, 2026

Encephalopsin (Opn3)_R (OZ542)

RRID:Addgene_28067

Type: Plasmid

Proper Citation

RRID:Addgene_28067

Plasmid Information

URL: <http://www.addgene.org/28067>

Proper Citation: RRID:Addgene_28067

Insert Name: Zinc finger array targeting Encephalopsin (Opn3)

Organism: Danio rerio

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:18657511](#)

Vector Backbone Description: Backbone Size:5493; Vector Backbone:MG414; Vector Types:Zebrafish Targeting; Bacterial Resistance:Kanamycin

Comments: This plasmid encodes a zinc finger array targeting half of a target sequence in the zebrafish gene Encephalopsin (Opn3)(see below). Please note that this plasmid does NOT contain the Encephalopsin (Opn3) sequence. Users must order the complementary plasmid Encephalopsin (Opn3)_L (OZ541) [Addgene plasmid 28066] in order to create a zinc finger nuclease (ZFN) pair to introduce targeted mutations into this specific zebrafish gene. Users will also need to clone the zinc finger (ZF) insert of this plasmid into a zinc finger nuclease (ZFN) vector to express a FOKI fusion product. Examples of possible ZFN expression vectors that can be used are: pST1374 (Addgene plasmid 13426), pMLM290 (Addgene plasmid 21872), pMLM292 (Addgene plasmid 21873), pMLM800 (Addgene plasmid 27202) and pMLM802 (Addgene plasmid 27203). This zinc finger array was tested for binding activity to the sequence 5'-GTGGCAGAA-3' in a bacterial two hybrid assay, and resulted in 3.30 fold activation. However, this array has not yet been tested for activity as a zinc finger nuclease (i.e. for its ability to induce mutations at the intended locus). Scientists using this zinc finger array in a publication should notify zebrafishzfs@zincfingers.org and acknowledge NIH grant number R01 GM088040 in the publication. Other Articles: "Oligomerized pool engineering (OPEN): an 'open-source' protocol for making customized zinc-finger arrays." Maeder ML et al. (Nat Protoc. 2009 Sept 17. 4(10):1471-1501. Pubmed ID: 19798082 "Targeted mutagenesis in

zebrafish using customized zinc-finger nucleases." Foley JE et al. (Nat Protoc. 2009 Dec 3. 4(12):1855-1867. Pubmed ID: 20010934

Plasmid Name: Encephalopsin (Opn3)_R (OZ542)

Record Creation Time: 20220422T222126+0000

Record Last Update: 20260815T081309+0000

Ratings and Alerts

No rating or validation information has been found for Encephalopsin (Opn3)_R (OZ542).

No alerts have been found for Encephalopsin (Opn3)_R (OZ542).

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.