

Resource Summary Report

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[pFastBac StrepII msfGFP TEV cloning vector with BioBrick PolyPromoter LIC Subcloning \(438-Rgfp\)](#)

RRID:Addgene_55221

Type: Plasmid

Proper Citation

RRID:Addgene_55221

Plasmid Information

URL: <http://www.addgene.org/55221>

Proper Citation: RRID:Addgene_55221

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:28668116](#)

Vector Backbone Description: Vector Backbone:pFastBac; Vector Types:Insect Expression; Bacterial Resistance:Ampicillin

Comments: In order to increase the efficiency of subcloning with the Series-11 MacroBac plasmids we developed a new strategy the uses LIC (Ligation Independent Cloning). The problem with the Series-11 ligation mediated subcloning was that when the plasmid size approached or exceeded 20 kb we had to screen many colonies to find a positive. We developed a strategy to use LIC for subcloning. Because this method uses no ligase, the cloning background associated with re-ligation of the empty plasmid are eliminated. 438-Rgfp has a TEV cleavable StrepII and msfGFP at the N-terminus. The 438-Rgfp vector use the LICv1 Forward and Reverse primers. LICv1Forward - 5'-TACTTCCAATCCAATGCA-3' LICv1 Reverse - 5'-TTATCCACTTCCAATGTTATTA-3' As the target plasmid size gets >20kb you may have to increase the amount of DNA you anneal and/or transform. We have found this method gives no background colonies at all and 100% of the colonies we pick are positive. The cells we transform into are XL1Blues with a competency $\sim 6 \times 10^7$ cfu/ul. For more information, please see our website: <http://qb3.berkeley.edu/qb3/macrolab/>

Plasmid Name: pFastBac StrepII msfGFP TEV cloning vector with BioBrick PolyPromoter LIC Subcloning (438-Rgfp)

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Ratings and Alerts

No rating or validation information has been found for pFastBac StrepII msfGFP TEV cloning vector with BioBrick PolyPromoter LIC Subcloning (438-Rgfp).

No alerts have been found for pFastBac StrepII msfGFP TEV cloning vector with BioBrick PolyPromoter LIC Subcloning (438-Rgfp).

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 6 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Loeff L, et al. (2025) Mechanistic basis for PYROXD1-mediated protection of the human tRNA ligase complex against oxidative inactivation. *Nature structural & molecular biology*, 32(7), 1205.

Asanovi? I, et al. (2021) The oxidoreductase PYROXD1 uses NAD(P)⁺ as an antioxidant to sustain tRNA ligase activity in pre-tRNA splicing and unfolded protein response. *Molecular cell*, 81(12), 2520.

Kroupova A, et al. (2021) Molecular architecture of the human tRNA ligase complex. *eLife*, 10.

Boneberg FM, et al. (2019) Molecular mechanism of the RNA helicase DHX37 and its activation by UTP14A in ribosome biogenesis. *RNA (New York, N.Y.)*, 25(6), 685.

Booth EA, et al. (2016) Effects of Bni5 Binding on Septin Filament Organization. *Journal of molecular biology*, 428(24 Pt B), 4962.

?led? P, et al. (2016) Structural insights into the molecular mechanism of the m(6)A writer complex. *eLife*, 5.