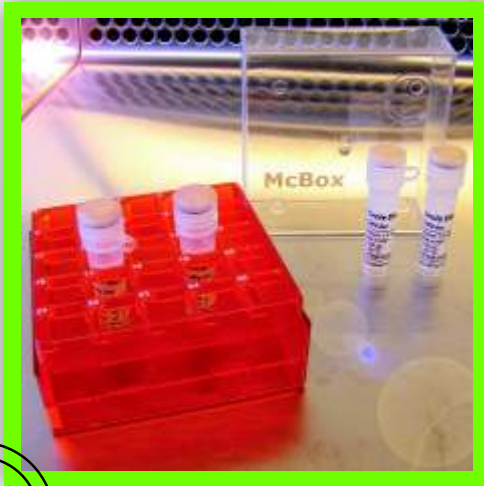


McBox[®]_{GFP}

Research beyond the state-of-the-art



The Dawn of a new Era
in Gene Therapy
& Vaccination!

Minicircle - minimized DNA
to achieve unsurpassed
GFP expression

Minicircle DNA by PlasmidFactory

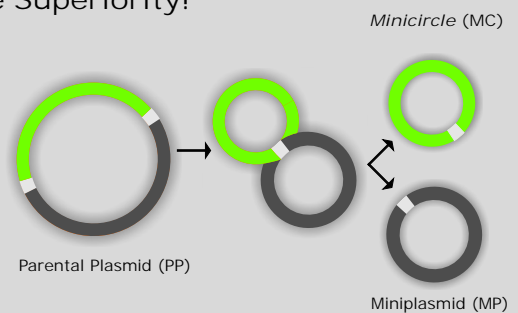
- Minimal size
 - Highest purification level
 - No bacterial backbone sequences (*ori*, AB[®])
 - Reduced CpG content
 - No antibiotic resistance according to EMEA guideline (CPMP/BWP/3088/99)
- ➔ Improved safety
 - ➔ Minimized side effects
 - ➔ Excellent transfection efficacy
 - ➔ Optimized transfection profile
 - ➔ Trouble-free transfer of your research into clinical application

➔ Compare the first *minicircle* DNA encoding the green fluorescent protein (GFP) with the corresponding plasmid in your experimental setting!

➔ Optimize your transfection!

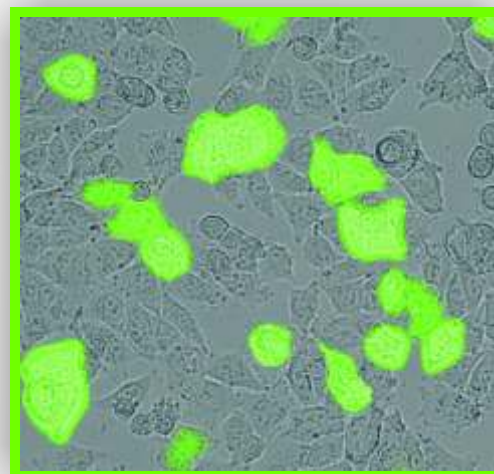
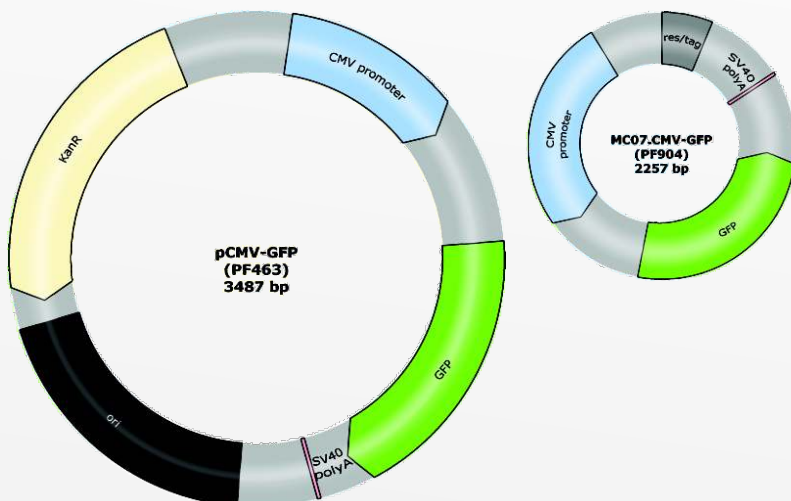
➔ Order the new McBox[®]_{GFP}!

The PlasmidFactory *Minicircle* System - unique Superiority!



PlasmidFactory's proprietary *minicircle* system is based on a parental plasmid carrying a selection marker, the origin of replication (*ori*), two recombination sites and the gene-of-interest. The recombination of a PP results in two circular supercoiled molecules: A miniplasmid containing the selection marker, the *ori* and all the unwanted, unessential bacterial sequences and the *minicircle* with hardly more than the gene of interest and all necessary elements for regulation in the target cells.

PlasmidFactory.com



Green Fluorescence Protein (GFP) expression from *minicircle* MC07.CMV-GFP 24 hours after transfection of human melanoma (A375) cells using Metafectene. For transfection 1 microgram *minicircle* DNA was used and GFP expression was evaluated in a fluorescence microscope (Zeiss). The figure depicts the merged GFP fluorescence and light microscope images. Magnification: 200-fold.
(D. Kobelt, W. Walther, Charité and MDC Berlin)

The McBox_{GFP} contains:

	concentration [mg/mL]	size [bp]	chrDNA [%]	LPS endotoxin [E.U./mg]	ccc supercoil [%] by CGE
MC07.CMV-GFP (<i>minicircle</i> , PF904, 100 µg)	1.0	2257	3.0	5.0	90.0
pCMV-GFP (plasmid, PF463, 100 µg)	1.0	3487	3.0	5.0	90.0
WFI (water for injection, 500 µL)					

Order information:

McBox -GFP, item no.: PFBox102

Contact us:

PlasmidFactory GmbH & Co. KG
Meisenstraße 96
33607 Bielefeld
GERMANY

Phone: +49 521 299 735-0

Fax: +49 521 299 735-5

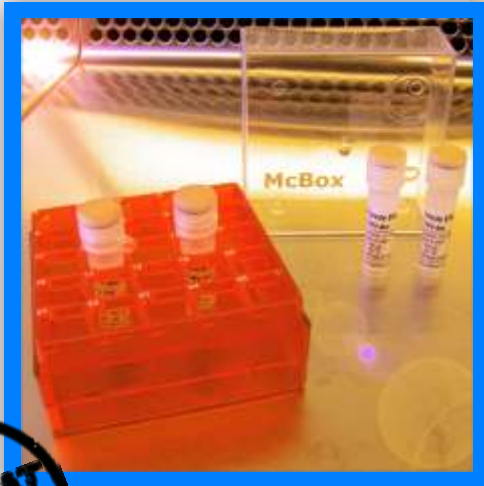
info@PlasmidFactory.com

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McBox[®] *lacZ*

Research beyond the state-of-the-art



NEW

A new member of
the McBox family!

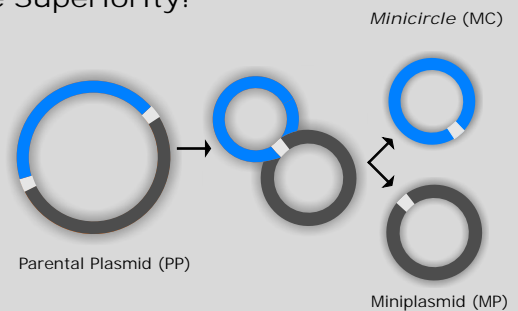
Minicircle - minimized DNA
to achieve unsurpassed
lacZ expression

Minicircle DNA by PlasmidFactory

- Minimal size
 - Highest purification level
 - No bacterial backbone sequences (*ori*, *AB*[®])
 - Reduced CpG content
 - No antibiotic resistance according to EMEA guideline (CPMP/BWP/3088/99)
-
- ➔ Improved safety
 - ➔ Minimized side effects
 - ➔ Excellent transfection efficacy
 - ➔ Optimized transfection profile
 - ➔ Trouble-free transfer of your research into clinical application

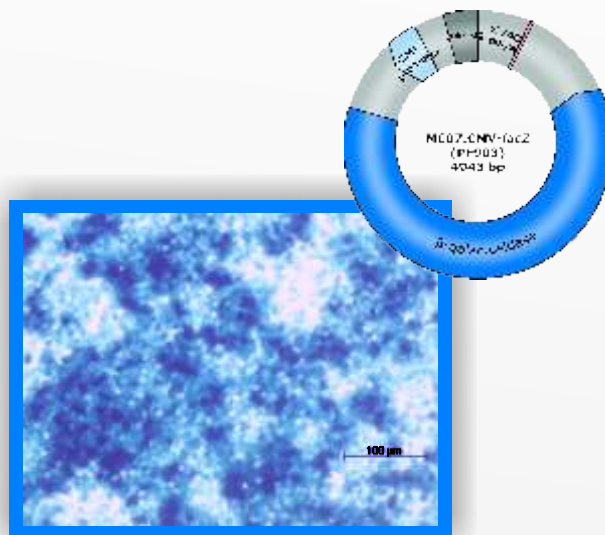
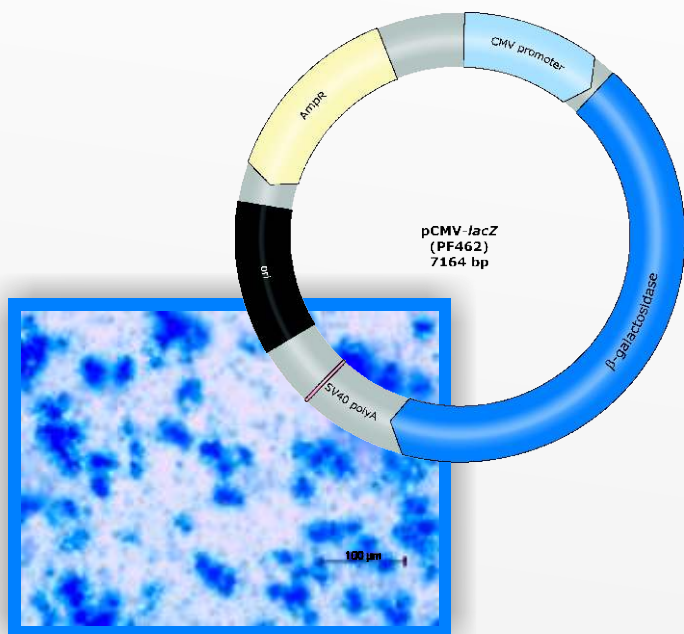
- ➔ Compare the first *minicircle* DNA encoding β -galactosidase (*lacZ*) with the corresponding plasmid in your experimental setting!
- ➔ Optimize your transfection!
- ➔ Order the new **McBox[®] *lacZ***!

The PlasmidFactory *Minicircle* System - unique Superiority!



PlasmidFactory's proprietary *minicircle* system is based on a parental plasmid carrying a selection marker, the origin of replication (*ori*), two recombination sites and the gene-of-interest. The recombination of a PP results in two circular supercoiled molecules: A miniplasmid containing the selection marker, the *ori* and all the unwanted, unessential bacterial sequences and the *minicircle* with hardly more than the gene of interest and all necessary elements for regulation in the target cells.

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LacZ gene expression in HEK293T cells, transfected in equimolar amounts with LPEI: *LacZ* plasmid pCMV-*lacZ* (PF462, left), *LacZ* minicircle MC07.CMV-*lacZ* (PF903, right). Data kindly provided by A. Himmel & C. Rudolph, University of Munich, Germany.

The McBox_{lacZ} contains:

	concentration [mg/mL]	size [bp]	chrDNA [%]	LPS endotoxin [E.U./mg]	ccc supercoil [%] by CGE
MC07.CMV- <i>lacZ</i> (minicircle, PF903, 100 μg)	1.0	4943	3.0	5.0	90.0
pCMV- <i>lacZ</i> (plasmid, PF462, 100 μg)	1.0	7164	3.0	5.0	90.0
WFI (water for injection, 500 μL)					

Order information:

McBox -*lacZ*, item no.: PFBox103

Contact us:

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McBox[®]_{Luc}

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The Dawn of a new Era
in Gene Therapy
& Vaccination!

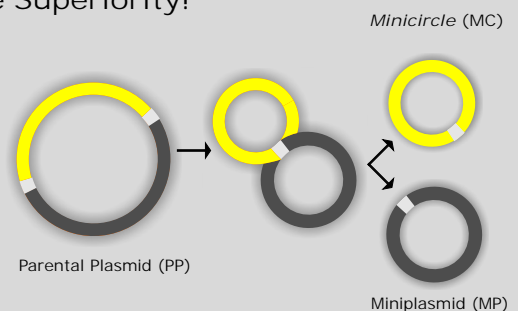
Minicircle - minimized DNA
to achieve unsurpassed
luciferase expression

Minicircle DNA by PlasmidFactory

- Minimal size
- Highest purification level
- No bacterial backbone sequences (*ori*, AB[®])
- Reduced CpG content
- No antibiotic resistance according to EMEA guideline (CPMP/BWP/3088/99)
- ➔ Improved safety
- ➔ Minimized side effects
- ➔ Excellent transfection efficacy
- ➔ Optimized transfection profile
- ➔ Trouble-free transfer of your research into clinical application

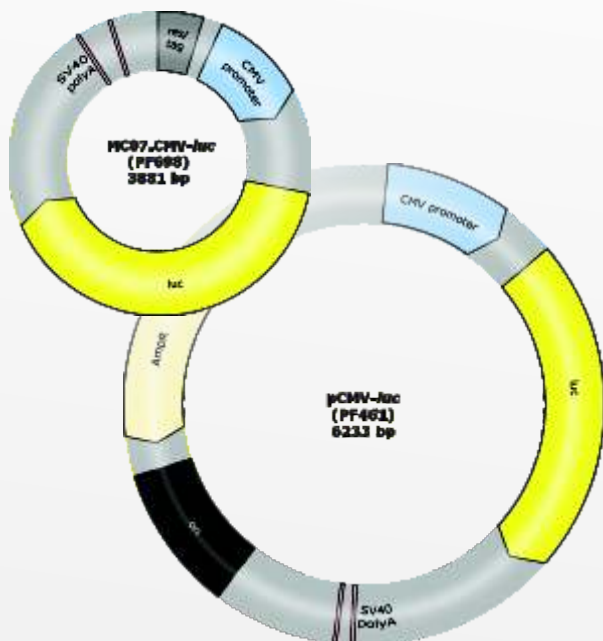
- ➔ Compare the first *minicircle* DNA containing the luciferase gene with the corresponding plasmid in your experimental setting!
- ➔ Optimize your transfection!
- ➔ Order the new **McBox[®]_{Luc}**!

The PlasmidFactory *Minicircle* System - unique Superiority!



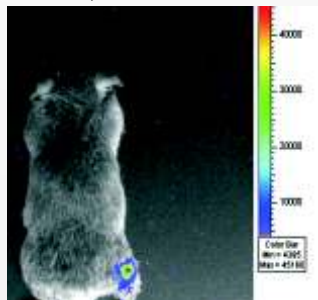
PlasmidFactory's proprietary *minicircle* system is based on a parental plasmid carrying a selection marker, the origin of replication (*ori*), two recombination sites and the gene-of-interest. The recombination of a PP results in two circular supercoiled molecules: A miniplasmid containing the selection marker, the *ori* and all the unwanted, unessential bacterial sequences and the *minicircle* with hardly more than the gene of interest and all necessary elements for regulation in the target cells.

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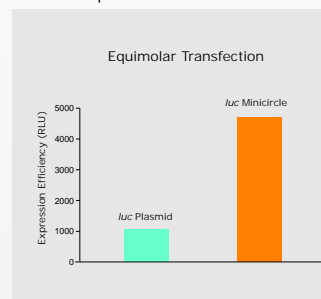
Performance studies of PlasmidFactory's firefly luciferase minicircle:

In Vivo Expression



In vivo transfection of mouse muscle by sonoporation using Sonidel[™] SP 100 (P. O Corragain, Sonidel[™] Ltd, and A. P. McHale, University of Ulster)

In Vitro Expression



In vitro transfection of HCT116 cells using metafectene (D. Kobelt, J. Aumann, W. Walther, Charité and MDC Berlin)

The McBox_{luc} contains:

	concentration [mg/mL]	size [bp]	chrDNA [%]	LPS endotoxin [E.U./mg]	ccc supercoil [%] by CGE
MC07.CMV- <i>luc</i> (minicircle, PF698, 100 µg)	1.0	3881	3.0	5.0	90.0
pCMV- <i>luc</i> (plasmid, PF461, 100 µg)	1.0	6233	3.0	5.0	90.0
WFI (water for injection, 500 µL)					

Order information:

McBox -*luc*, item no.: PFBox101

Contact us:

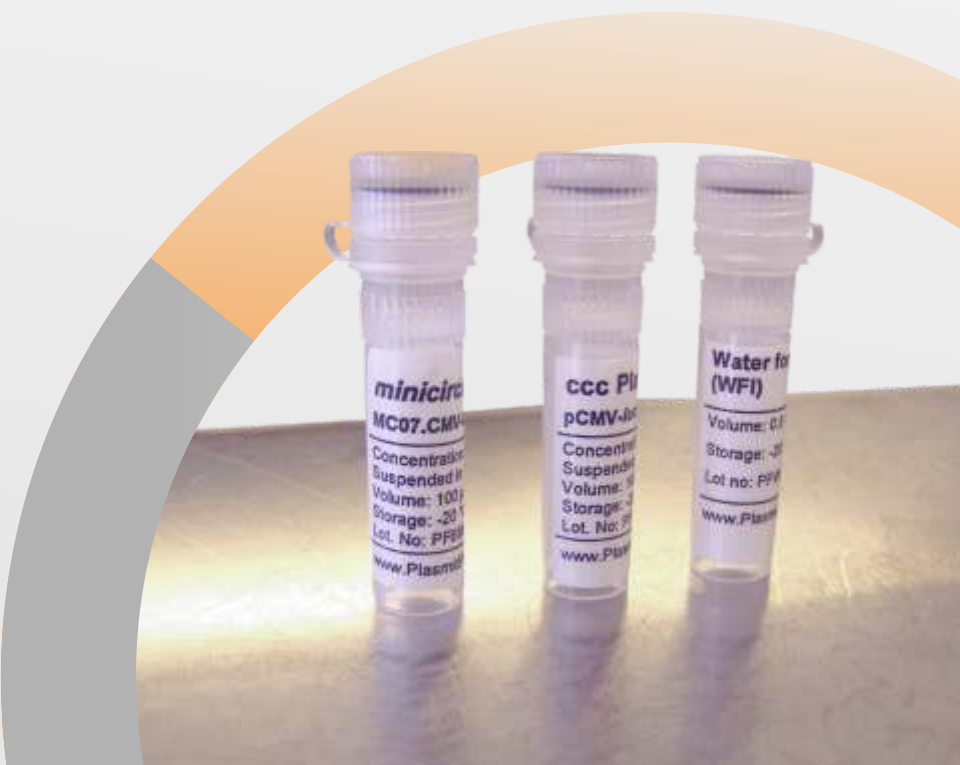
PlasmidFactory GmbH & Co. KG
Meisenstraße 96
33607 Bielefeld
GERMANY

Phone: +49 521 299 735-0

Fax: +49 521 299 735-5

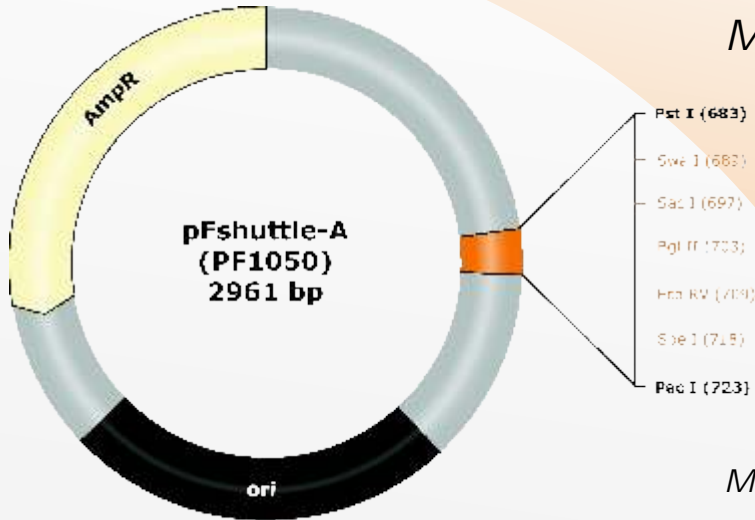
info@PlasmidFactory.com

PlasmidFactory.com



McBox[®] shuttle

Your gene of interest as a *minicircle*



Minicircle - minimized DNA for maximized success

Minicircle DNA by PlasmidFactory

- Minimal size
 - Highest purification level
 - No bacterial backbone sequences (*ori*, *AB*[®])
 - Reduced CpG content
 - No antibiotic resistance according to EMEA guideline (CPMP/BWP/3088/99)
- Improved safety
→ Minimized side effects
→ Excellent transfection efficacy
→ Optimized transfection profile
→ Trouble-free transfer of your research into clinical application

NEW

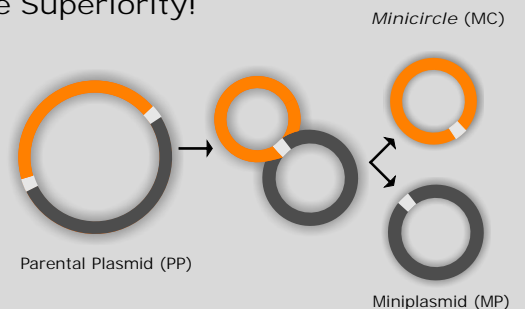
Your shuttle to *minicircle* technology!

The worldwide first tool to transfer your gene of interest (GOI) into PlasmidFactory's *minicircle* system.

How it works:

1. Order the shuttle plasmid. It provides a CpG-free cloning site to incorporate your gene of interest (GOI).
2. Send the shuttle - now containing your GOI - back to PlasmidFactory.
3. Get your GOI as highly purified *minicircle* from PlasmidFactory's *minicircle* manufacturing service.

The PlasmidFactory *Minicircle* System - unique Superiority!

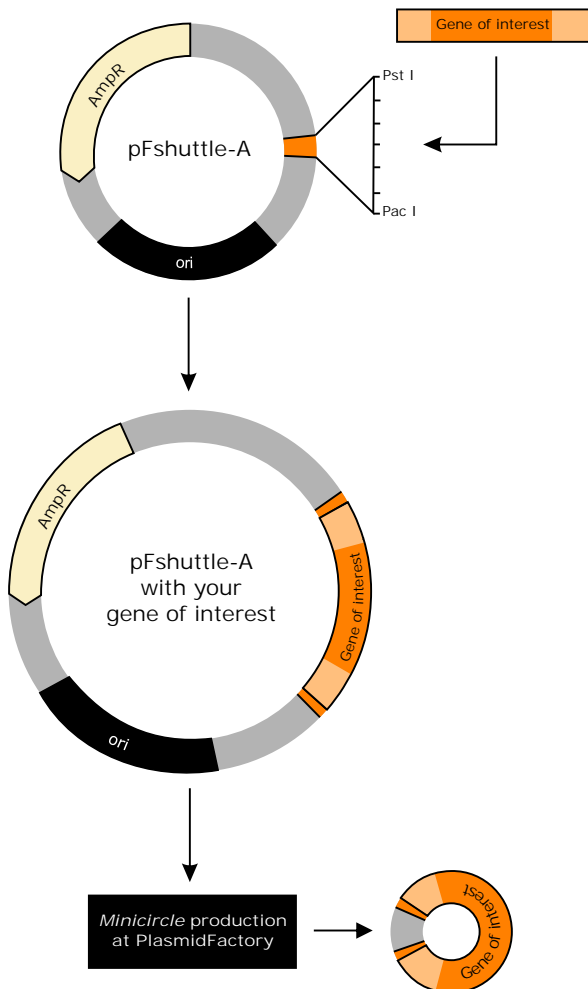


PlasmidFactory's proprietary *minicircle* system is based on a parental plasmid carrying a selection marker, the origin of replication (*ori*), two recombination sites and the gene-of-interest. The recombination of a PP results in two circular supercoiled molecules: A miniplasmid containing the selection marker, the *ori* and all the unwanted, unessential bacterial sequences and the *minicircle* with hardly more than the gene of interest and all necessary elements for regulation in the target cells.

PlasmidFactory.com



Your gene of interest...



... as a *minicircle*.

This toolbox contains our pFshuttle-A plasmid. It provides a sequence structure allowing you to insert your gene of interest between two specific restriction sites. Any necessary information (e.g. sequence of the shuttle plasmid) will be delivered with the McBox[®] shuttle.

The pFshuttle-A plasmid with your incorporated gene of interest is the basis for the following next steps:

Our contract production service will transfer the DNA fragment into PlasmidFactory's unique patented *minicircle* production system. The subsequently purified *minicircle* will be produced for your in-house evaluation.

The McBox[®] shuttle contains:

pFshuttle-A plasmid (PF1050, 100 µg, 1.0 mg/mL, 2961 bp)
DNA marker 1kb ladder,
incl. loading buffer (MSM-865-50, 50 µg)

Order information:

McBox[®] shuttle item no.: PFBox201

Contact us:

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McBox-shuttle
Version 1001

