

# LEXSInduce3 Expression Kit (contains the integrative vector

## pLEXSY\_I-ble3)

The LEXSInduce3 kit contains one of three expression vectors of choice which differ in the antibiotic resistance marker and the option to monitor expression online by a fluorescence reporter. The vector pLEXSY\_I-neo3 (encoding aminoglycoside phosphotransferase) allows selection with the antibiotic LEXSY Neo, whereas pLEXSY\_I-ble3 (encoding bleomycin resistance gene) permits selection with the antibiotic LEXSY Bleo. The vector pLEXSY\_I-blecherry3 facilitates selection with the antibiotic LEXSY Bleo and, in addition, offers the possibility to monitor induction during cultivation by coexpressed fluorescence. The control vector provided in the kit contains the EGFP gene linked to the respective selection marker.

The pLEXSY\_I-3 vectors enable inducible expression of target proteins either with or without secretory signal peptide provided on the vectors. For customer convenience the same vector can be used for cloning of ORFs either for cytosolic or for secretory expression. The LmSAP secretory signal peptide encoded on these vectors was derived from the gene for secreted acid phosphatase (Lmsap1) of *Leishmania mexicana*. In-frame fusion of the ORF of a target protein to this signal peptide allows secretory expression in LEXSY hosts, whereas cloning into any of the restriction sites at the 5' end of the signal peptide-encoding sequence will result in cytosolic expression. An illustration of the inducible LEXSY can be downloaded from the Jena Bioscience website at

[http://www.jenabioscience.com/images/b3e879b381/Illustration\\_inducible\\_LEXSY.pdf](http://www.jenabioscience.com/images/b3e879b381/Illustration_inducible_LEXSY.pdf)

One main advantage of LEXSY is the mammalian-type posttranslational modification of target proteins, such as glycosylation, phosphorylation or prenylation. Recombinant human erythropoietin (EPO) purified at Jena Bioscience from LEXSY was biologically active, natively processed at the N-terminus, and N-glycosylated. The N-glycosylation profile was exceptionally homogeneous, with a biantennary oligosaccharide and the Man3GlcNAc2 core structure accounting for >90% of the glycans present. *L. tarentolae* is thus the first described biotechnologically useful unicellular eukaryotic host producing biantennary, fully galactosylated, core- $\alpha$ -1,6-fucosylated N-glycans. This N-glycosylation profile was coincident with the profile of recombinant human Interferon- $\gamma$  expressed in LEXSY and of LEXSY host Gp63 glycoprotein. An illustration of LEXSY glycosylation can be downloaded from the Jena Bioscience website

at [http://www.jenabioscience.com/images/b3e879b381/Illustration\\_LEXSY\\_Glycosylation.pdf](http://www.jenabioscience.com/images/b3e879b381/Illustration_LEXSY_Glycosylation.pdf)

## Ordering Information

[Order Online »](#)

JBS-EGE-1410ble	1Kit
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## Manuals, SDS & CofA

[View Online »](#)

# Handling & Storage

Shipping Blue Ice

# Regulatory Status

 RUO - Research Use Only

# Product Details

## Contents

- LEXSY host T7-TR: kit contains three vials with 1.6 ml each of frozen glycerol stocks of LEXSY host T7-TR.
- pLEXSY\_I-3 expression vector pLEXSY\_I-blecherry3 (Cat. No. JBS-EGE-243), 5 µg in 10 mM Tris HCl pH 8.0
- pLEXSY\_I-3 control plasmid with EGFP gene pLEXSY\_I-egfp-ble3 (Cat. No. JBS-EGE-247), 5 µg in 10 mM Tris HCl pH 8.0
- Primers for diagnostic PCR and sequencing:  
  
ble forward primer A708, for pLEXSY\_I-ble3 and pLEXSY\_I-blecherry3  
Insert sequencing forward primer P1442  
Insert sequencing reverse primer A264  
5`utr (aprt) reverse primer A1715  
odc forward primer A1304  
odc reverse primer P1510
- LEXSY BHI, Powder for preparation of liquid cultivation medium
- LEXSY Bleo for pLEXSY\_I-ble3 and pLEXSY\_I-blecherry3 – 1 ml, ready-to-use 1000x stock solution, 100 mg/ml, filter-sterilized
- inducer of the T7-TR system: LEXSY Tet (Tetracycline) – 1 ml, ready-to-use 1000x stock solution, 10 mg/ml, filter sterilized
- Hemin (0.25% porcine Hemin in 50% Triethanolamine) – 2 ml, ready-to-use 500x stock solution, steril-filtered
- Pen-Strep, ready-to-use 200x stock solution, steril-filtered

**Technical Info / Product Notes** For the Original Manufacturer's data sheet please [click here](#).



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