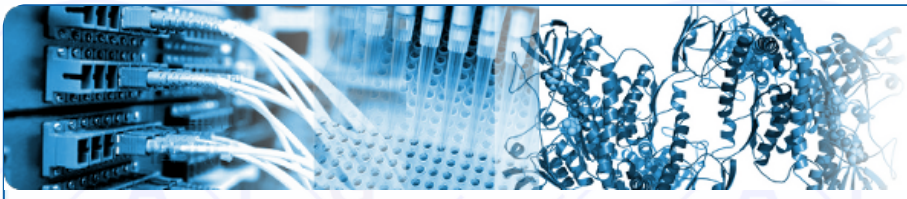


ATG:biosynthetics
Solutions
in biosynthetics

CODONEWS Issue 60

25 June 2014

NEW

DNA assembly technology for to integrate your synthetic genes into functionally orchestrated genetic constructions

Dear customers,

Now DNA - constructions of up to **40 kb** deploying an assembly-innovation are available and up to **200 kb** in the **project mode** on request**.**

ATG:biosynthetics is your specialist for functionally highly integrated multi-gene systems that enable concerted synergistic action.

Concerted gene expression in gene clusters e.g. for:

- hetero-protein complexes (protein complex function and structure crystallization studies)
- katabolic/ anabolic pathway systems (bio-catalytic chain production optimization)
- special bio-analytical research (tool designs with reporter and marker and tag fusion proteins)

We offer solutions at various levels and for multiple target specifications:

- synthetic genes: highly parallel formal-functional gene calculations on multiple sequence parameters.
- concepts for high level of structural integration in molecular constructions and pathway designs
- proven by **>40 kb** artificial metabolic pathway designs and realization as functional gene cluster
- proven by many projects in multi-protein / protein complex co-expression
- your partner in Synthetic Bioinformatics
- from X-omics to multiple gene function analyses in comparative genomics
- custom-designed multi-gene/protein expression system

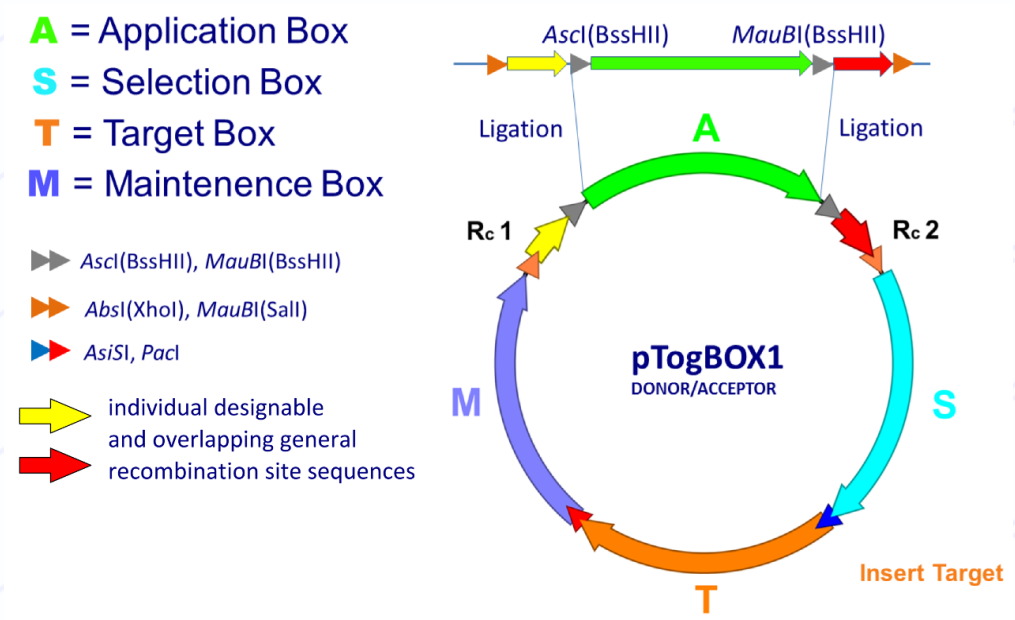
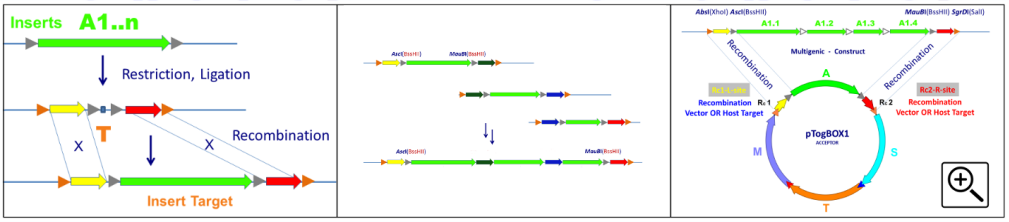


Fig.1.: The **DONOR/ ACCEPTOR**-based **pTogBOX1**-Vector–System has unique features for the design of multi-gene expression systems. The **pTogBox1** molecular construction vector is compatible with **Restriction/ Ligation, 3'-SLIC** and **5'-Exonuclease** technology as well as **recombineering** and **TALE technologies** (transcription activator like effectors). For the TOGGLE Assembly system manual please klick here (.pdf).

INQUIRE/ORDER



Blending standardized molecular design criteria with synthetic genes offers unique and novel opportuniities for handling genetic systems in terms of flexibility, modularity, and re-usability of functional genetic elements **(FunGenEs)**.
Leaving the concepts of individual designs of overcome vector concepts allows the making the best out of synthetic biology is the most reliable feature for increasing speed of developments and **"time to market"** at the very end.

Bioproduction Product	Pathway in kb	Application	Constructional Design	Expression Optimization	Leader-Library	Specific Vector: Design & Syntheses
Epothilone	65	Cytostatic	yes	yes	yes/no	yes
ω-3-PUFA	31,4	Essent. Fatty Acid	yes	yes	yes	yes
Argyrin	37,2	Antibiotic	yes	yes	yes	yes
MethylMalonylCoA	18,8	Metabolic	yes	yes	no	yes
MyxoChromid	32	Antibiotic	yes	yes	no	yes
Coronatin	36	Phytotoxin	yes	no	no	yes
Bottromyicin	20	Antibiotic	yes	no	no	yes
Myxopyronin	53,4	Antibiotic	yes	no	no	yes
Glumicin	35,2	Antibiotic	yes	no	no	yes
Magnetit	8,9	Geotropism	yes	no	no	yes
5-Hetero-Proteins Complex	10,4	Regulation on Protein Level	yes	no	no	yes

Multiple Glycosyl-transferase Genes	9,5	Glycosyl-ation	yes	no	no	yes

For more information or a quote, just ask our experts at
https://www.atg-biosynthetics.com/Optimizations/InfoRequestOpt.html
or give us a call: +497618889424

ATG:biosynthetics ... experts in synthetic biology and bioinformatics