

IBA Lifesciences GmbH Rudolf-Wissell-Str. 28 37079 Goettingen Germany Tel.: +49 (0) 551-5 06 72-0 E-mail: info@iba-lifesciences.com www.iba-lifesciences.com

# **Data Sheet**

## pYSG-IBA123

Cat. No.: 5-4723-001

Version: 3.0 Revision Date: 27.07.2021

Description	StarGate Acceptor Vector for high-level expression of target proteins in yeast. It carries the the copper-inducible promoter (CUP1) for controlled high-level expression, the URA3 auxotrophy marker for selection after transformation (do not use URA3 for selection during expression), the LEU2d auxotrophy marker for selection to increase plasmid copy number for expression (do not use LEU2d for selection after transformation), and the 2 micron ori for episomal replication in yeast.					
Affinity tag	Twin-Strep-tag <sup>®</sup> is fused to the C-terminus and GST-tag is fused to the N-terminus of the recombinant protein. GST-tag can be removed by digesting with PreScission™ Protease.					
Cloning Strategy	Cloning into StarGate Acceptor Vectors has to be done with the restriction enzyme Esp3I. There is no Multiple Cloning Site (MCS) available that can be used for the integration of the gene of interest instead (see manual).					
Yeast Expression	Cultivate transformed yeast cells under LEU2d selection until OD <sub>600</sub> reaches 0.8-1.2. Induce protein expression by addition of copper sulphate to a final concentration of 0.5 mM.					
Form	5 μg, dissolved in 20 μl TE buffer, pH 8.0: 10 mM Tris/HCl, 1 mM EDTA					
Concentration	250 ng/μl					
Stability	12 months after shipping					
Storage	recommended: 2-8 °C for frequent usage, -20 °C for long-term storage					
Shipping	room temperature					
Hazards	Product is not classified as hazardous according to (EC) No 1272/2008 [CLP]. A Material Safety Data Sheet is provided.					

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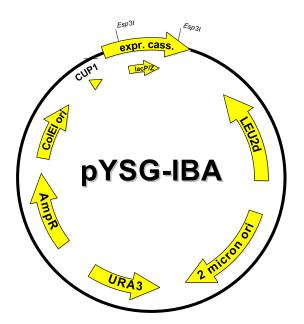
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## Expression cassette of pYSG-IBA123

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### Expression cassette of pYSG-IBA123, continued



 $\label{eq:LacP/Z cassette} \begin{array}{ll} \mbox{contains LacZ alpha fragment under control} \\ \mbox{of a separate promoter, which allows alpha} \\ \mbox{complementation of } LacZ mutations such as \\ LacZ\Delta M15 \mbox{ as in } E. \mbox{ coli } DH5\alpha \mbox{ or } TOP10. \\ \mbox{after StarGate cloning using } Esp3l \mbox{ your gene of interest will be located here} \end{array}$ 

Features	from bp	to bp	Sequencing primer						
LEU2d	1668	574	YSG-Primer-for						
2 micron ori	2032	3194							
URA3	4293	3490	5'- CAATATCATATAGAAGTCATCGA -3'						
Ampicillin resistance gene	4725	5585							
ColEl ori	5756	6345	YSG-Primer-rev						
CUP1 promoter	6873	6925	rsd-rimei-iev						
forward primer binding site	6939	6961	5'- GCAGCTACCACATTGGCATTGGC -3'						
GST-tag	7049	7702							
PreScission <sup>™</sup> Protease site (PCS)	7703	7750							
LacZ alpha fragment	7979	8380							
Twin-Strep-tag <sup>®</sup>	8444	8536							
reverse primer binding site	8577	8599							
total vector length		8600							