

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

pCSG-IBA142

Cat. No.: 5-5142-001

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Description	StarGate Acceptor Vector for transient expression as well as for generation of stable mammalian cell lines. Extrachromosomal replication in mammalian cells could occur either by origin of replication from Epstein-Barr Virus (oriP) or by SV40 ori. For the former the vector provides the EBNA-1 gene and for the latter the cell line has to be latently infected with SV40 or express the SV40 large T antigen (e.g., HEK293T, COS-1, COS-7). Stable cell lines can be selected by the neomycin resistance gene (NeoR). In addition, the human cytomegalovirus (CMV) immediate-early promoter enables a high-level expression in a wide range of mammalian cells. The expressed recombinant protein will be localized in the cytoplasm.			
Affinity tag	Twin-Strep-tag [®] is fused to the C-terminus and 6xHistidine-tag is fused to the N-terminus of the recombinant protein.			
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).			
Resistance	Ampicillin: for selection of transformed E. coli cells Neomycin: for selection of stable cell lines			
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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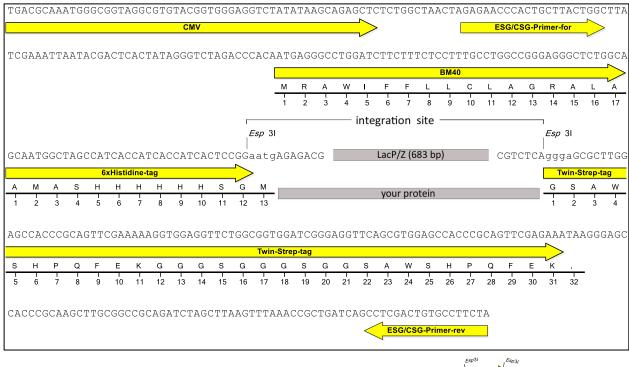
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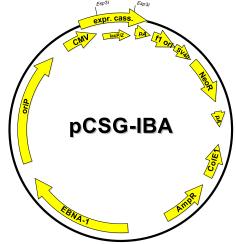
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Expression cassette of pCSG-IBA142





 $\label{eq:LacP/Z cassette} \begin{array}{ll} \mbox{LacZ alpha fragment under control of a separate} \\ \mbox{promoter, which allows alpha complementation of $LacZ$} \\ \mbox{mutations such as $LacZ\Delta M15$ as in E. coli DH5$$$$$$$$$$ or TOP10$$$$$$$$$$$$$$$$after StarGate cloning using $Esp3$$$ your gene of interest will be located here} \end{array}$

Features	from bp	to bp	Sequencing primer
polyA signal sequence	1	213	ESG/CSG-Primer-for
f1 origin	259	687	
SV40 ori	692	1035	5'- GAGAACCCACTGCTTACTGGC -3'
Neomycin resistance gene	1097	1891	
ColEl ori	2637	3222	
Ampicillin resistance gene	4253	3393	ESG/CSG-Primer-rev
EBNA-1	4944	6869	5'- TAGAAGGCACAGTCGAGG -3'
oriP, episomal replication origin	7170	9145	
CMV promoter	9426	10013	
forward primer binding site	10026	10046	
BM40 signal sequence	10089	10142	
6xHistidine-tag	10143	10175	
LacZ alpha fragment	10404	10805	
Twin-Strep-tag [®]	10869	10961	
reverse primer binding site	11023	11040	
total vector length		11040	