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Data Sheet

pCSG-IBA123

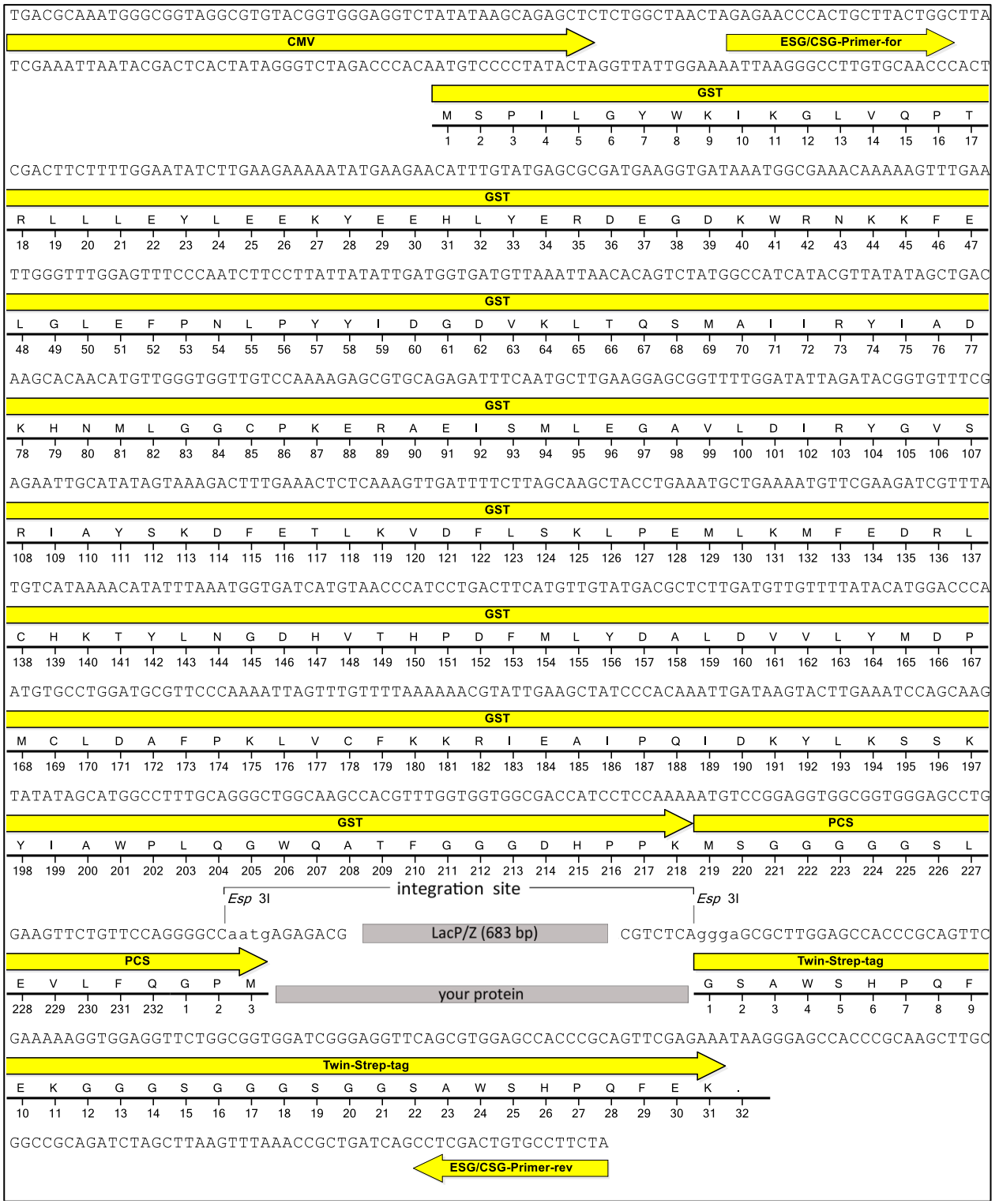
Cat. No.: 5-5123-001

Version: 3.0
Revision Date: 28.07.2021

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 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).
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.

For research use only

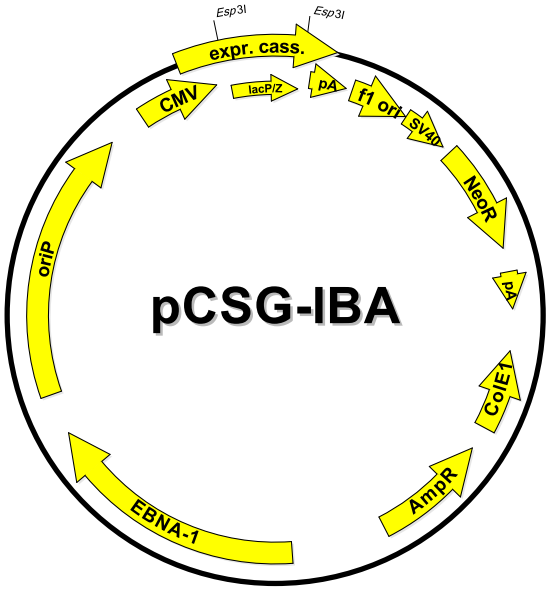
Expression cassette of pCSG-IBA123



Expression cassette of pCSG-IBA123, continued

LacP/Z cassette = contains LacZ alpha fragment under control of a separate promoter, which allows alpha complementation of *LacZ* mutations such as *LacZΔM15* as in *E. coli* DH5α or TOP10.

your protein = after StarGate cloning using *Esp3*I your gene of interest will be located here



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	
ColEI 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	
GST-tag	10089	10742	
PreScission™ protease site (PCS)	10743	10790	
Twin-Strep-tag®	11019	11420	
reverse primer binding site	11484	11576	
total vector length		11576	