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# **Data Sheet**

## pESG-IBA102

Cat. No.: 5-4502-001

Version: 3.0 Revision Date: 27.07.2021

Description	StarGate Acceptor Vector for stable and non-replicative transient expression in mammalian cells. It carries the human cytomegalovirus (CMV) immediate-early promoter for high-level expression and the SV40 ori for episomal replication in cell lines that are latently infected with SV40 or that express the SV40 large T antigen (e.g., HEK293T, COS-1, COS-7). The expressed recombinant protein will be localized in the medium.					
Affinity tag	Twin-Strep-tag <sup>®</sup> is fused to the C-terminus of the recombinant protein.					
Secretion	BM40 secretory signal peptide is encoded for the transfer of the expressed protein into the medium. During the translocation the signal peptide is removed by endogenous proteases.					
Cloning Strategy	StrategyCloning into StarGate Acceptor Vectors has to be done with the restriction enzyme Esp3I. There i 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 <i>E. coli</i> 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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### Expression cassette of pESG-IBA102

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LacP/Z cassette =	contains LacZ alpha fragment under control of a separate promoter, which allows alpha complementation of LacZ mutations such as LacZMM5 as in <i>F</i> coli DH5r or TOP10
your protein =	after StarGate cloning using <i>Esp3</i> I your gene of interest will be located here

Features	from bp	to bp	Sequencing primer						
f1 origin	259	687	ESG-Primer-for						
SV40 ori	692	1035							
Neomycin resistance gene	1097	1891	5'- GAGAACCCACTGCTTACTGGC -3'						
ColEl ori	2637	3222							
Ampicillin resistance gene	3393	4253	ESC_Drimer_roy						
CMV promoter	4621	5208							
forward primer binding site	5221	5241	5'- TAGAAGGCACAGTCGAGG -3'						
BM40 signal sequence	5284	5334							
LacZ alpha fragment	5566	5967							
Twin-Strep-tag <sup>®</sup>	6031	6123							
reverse primer binding site	6185	6202							
polyA signal sequence	1	213							
total vector length		6202							