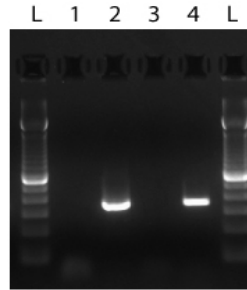


CAG Promoter PCR (pEMS1157)

Expected product size (bp) 370

Reaction components	Vol/Rxn (µl)
H ₂ O	15.15
10X PCR buffer*	2.5
50 mM MgCl ₂ *	0.75
2.5 mM dNTPs**	2
10 µM oEMS2364	1.25
10 µM oEMS2668	1.25
Taq Pol. (5 U/µl)*	0.1
DNA***	2
Total Volume of Rxn:	25



1- WT mouse DNA
 2- Control plasmid DNA (pEMS1157)
 3- No Template
 4- Knock-in ESC line
 L- 100 bp ladder
 expected band size = 370 bp

* Taq Polymerase set from Invitrogen (Cat no.18038-042)

** dNTPs from Invitrogen (Cat no.10297-018)

*** Approximately 100 ng DNA used for samples, approximately 5 ng used for plasmid control (pEMS1157)

Samples run on a 2% agarose gel (containing SYBRsafe (Invitrogen Cat no. S33102))

Cycling conditions:	Step	Temp	Time	Note
	1	94°C	3 min	
	2	94°C	1 min	
	3	61°C	1 min	
	4	72°C	45 sec	repeat steps 2-4 34 times
	5	72°C	5 min	
	6	4°C	hold	

Primers:

Name	Sequence	T_m (°C)	Notes
oEMS2364	5'- GCGTATCACGAGGCCCTTTC -3'	56.0	Sense primer located in Vector backbone 5' to MCS
oEMS2668	5'- GCCAAGTAGGAAAGTCCATAAGG -3'	56.3	Anti-sense primer located in CAG sequence