

Supplementary Materials: Construction of a *Vitreoscilla* hemoglobin promoter-based tunable expression system for *Corynebacterium glutamicum*

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Table S1 : 5-AVA production by recombinant *C. glutamicum* strains expressing DavBA and DavB_{His}DavA under different synthetic promoters after 120 h of flask cultivation under high aeration.

Strain: Plasmid		Promoter	5-AVA production (g/L)	Lysine production (g/L)	Glutaric Acid production (g/L)	Ref.
Recombinant <i>C. glutamicum</i> KCTC 1857						
H30_AVA:	pCES208H30:DavBA	P _{H30}	1.35 ± 0.25	n.d.	n.d.	30
H36_AVA:	pCES208H36:DavBA	P _{H36}	1.93 ± 0.23	n.d.	n.d.	30
H30_AVA _{His} :	pCES208H30:DavB _{His} DavA	P _{H30}	4.2 ± 0.92	n.d.	n.d.	30
H36_AVA _{His} :	pCES208H36:DavB _{His} DavA	P _{H36}	3.95 ± 0.08	n.d.	n.d.	30
5AVA1:	pCES208V1:DavBA	P _{vgb}	3.43 ± 0.10	4.41 ± 0.07	0.71 ± 0.03	This study
5AVA8:	pCES208V8:DavBA	P _{vgb8}	3.62 ± 0.07	4.41 ± 0.06	0.72 ± 0.02	This study
5AVA1 _{His} :	pCES208V1:DavB _{His} DavA	P _{vgb}	2.82 ± 0.03	3.99 ± 0.06	0.65 ± 0.01	This study
5AVA8 _{His} :	pCES208V8:DavB _{His} DavA	P _{vgb8}	3.31 ± 0.08	4.38 ± 0.03	0.67 ± 0.05	This study

* n.d. – The value was not determined.

Table S2 : GABA production by recombinant *C. glutamicum* strains expressing GadB_{mut} under different synthetic promoters after 120 h of flask cultivation under high aeration.

Strain: Plasmid		Promoter	GABA production (g/L)	Ref.
Recombinant <i>C. glutamicum</i> ATCC 13032				
pHGmut:	pCES208H36:GadB _{mut}	P _{H36}	5.89 ± 0.35	26
pIGmut:	pCES208I16:GadB _{mut}	P _{I16}	5.32 ± 0.04	26
pLGmut:	pCES208L26:GadB _{mut}	P _{L26}	4.87 ± 0.15	26
V1GD13032:	pCES208V:GadB _{mut}	P _{vgb}	4.82 ± 0.09	This study
V8GD13032:	pCES208V8:GadB _{mut}	P _{vgb8}	4.94 ± 0.27	This study
Recombinant <i>C. glutamicum</i> KCTC 1447				
H30GM1447:	pCES208H30:GadB _{mut}	P _{H30}	8.03 ± 0.04	This study
H36GM1447:	pCES208H36:GadB _{mut}	P _{H36}	8.21 ± 0.08	This study
V1GD1447:	pCES208V:GadB _{mut}	P _{vgb}	5.09 ± 0.64	This study
V8GD1447:	pCES208V8:GadB _{mut}	P _{vgb8}	5.22 ± 0.60	This study
Recombinant <i>C. glutamicum</i> KCTC 1852				
H30GM1852:	pCES208H30:GadB _{mut}	P _{H30}	8.36 ± 0.05	This study
H36GM1852:	pCES208H36:GadB _{mut}	P _{H36}	8.47 ± 0.06	This study
V1GD1852:	pCES208V:GadB _{mut}	P _{vgb}	5.31 ± 0.16	This study
V8GD1852:	pCES208V8:GadB _{mut}	P _{vgb8}	5.58 ± 0.27	This study