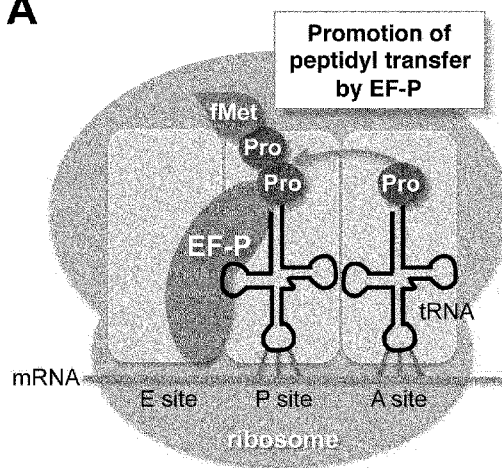
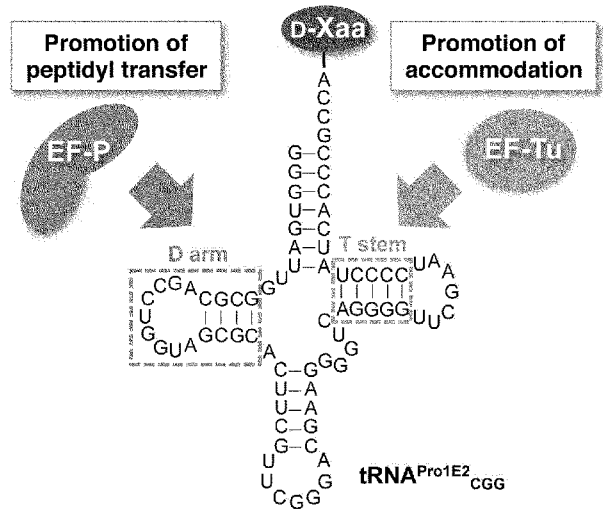


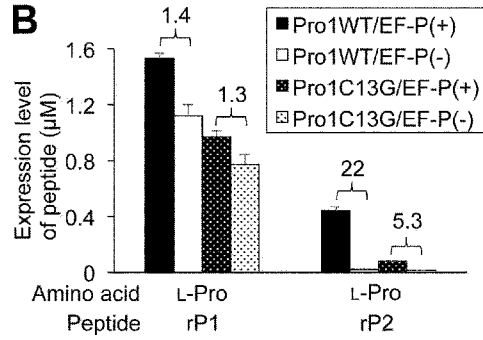
[1]

A**B**

[3]

A

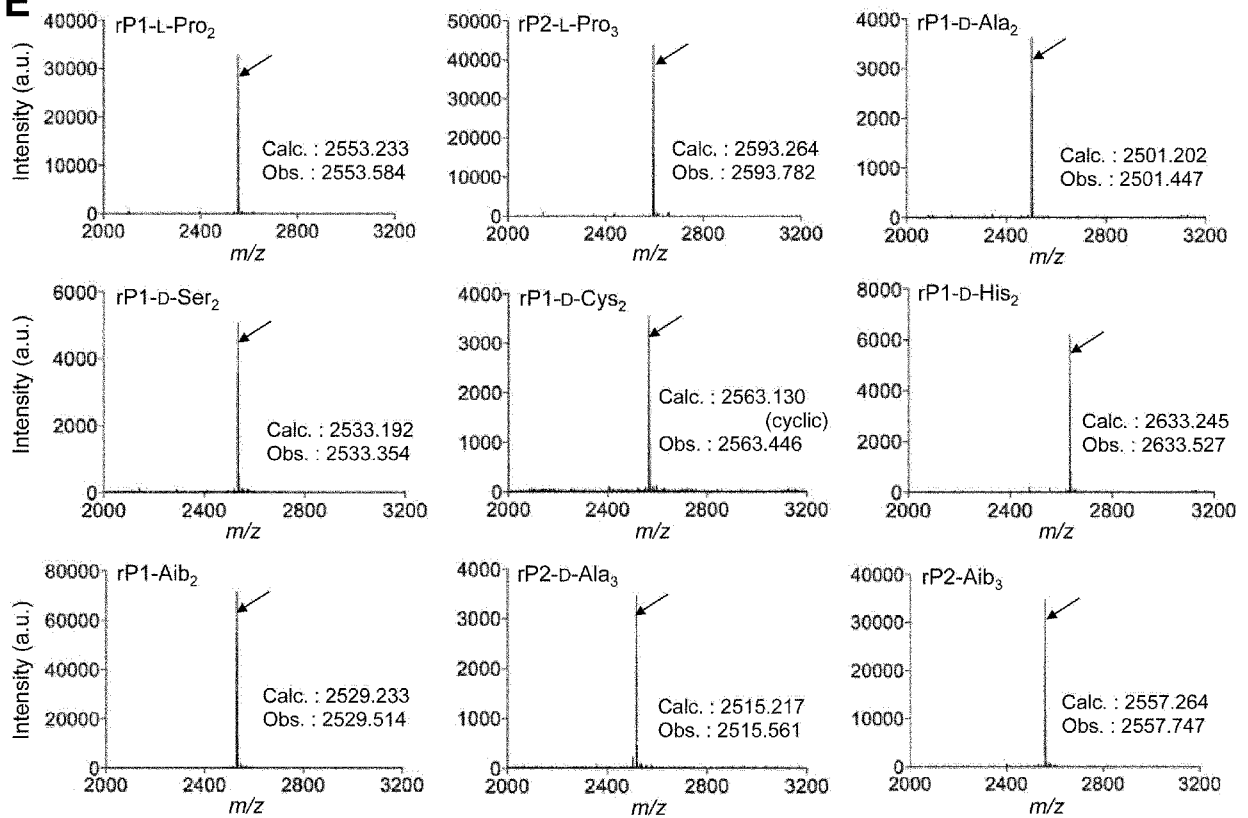
EF-P	+	-	+	-	+	-
codon	CCG	ACU	CAC			
Amino acid	D-Ala	D-Ala	D-Ala			
Peptide	rP1	rP1	rP1			

B**C**

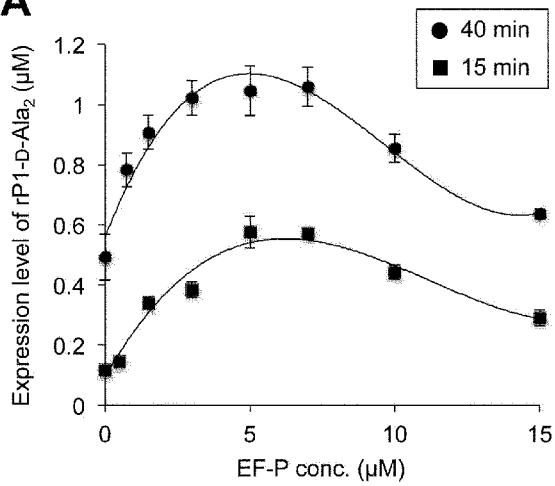
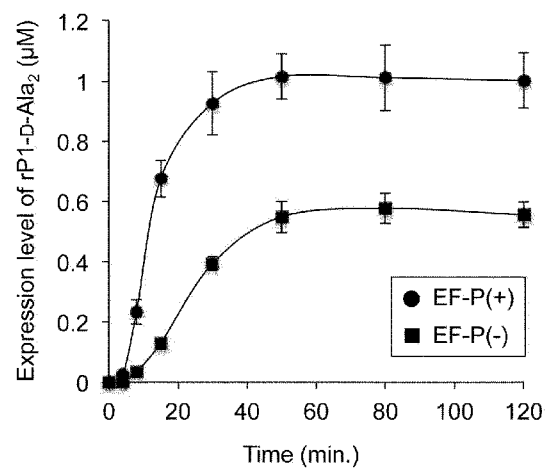
EF-P	+	-	+	-	+	-	+	-
tRNA	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1
	WT	C13G	WT	C13G	WT	C13G	WT	C13G
Amino acid	L-Pro				L-Pro			
Peptide	rP1				rP2			

D

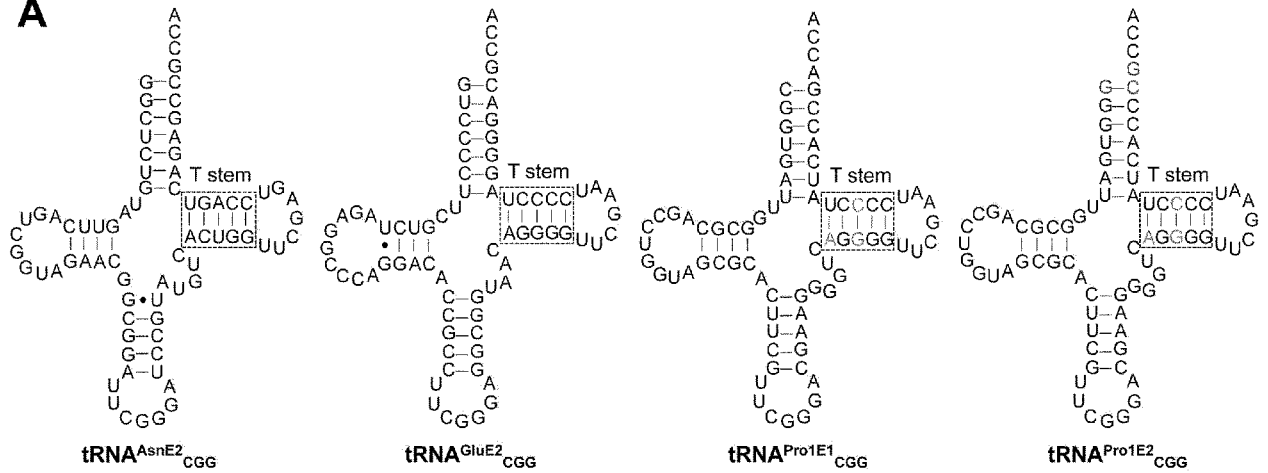
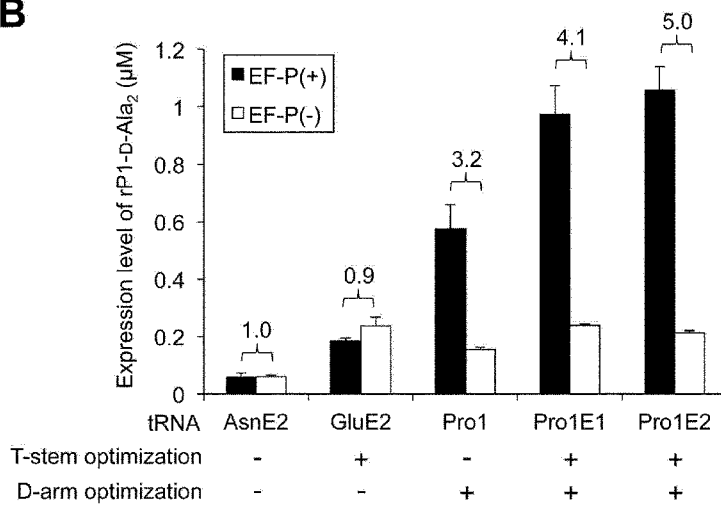
EF-P	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
tRNA	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1	Pro1
	WT	C13G	WT	C13G	WT	C13G	WT	C13G	WT	C13G	WT	C13G	WT	C13G	WT	C13G	WT	C13G
Amino acid	D-Ala				D-Ser				D-Cys				D-His				Aib	
Peptide	rP1				rP1				rP1				rP1				rP2	rP2

E

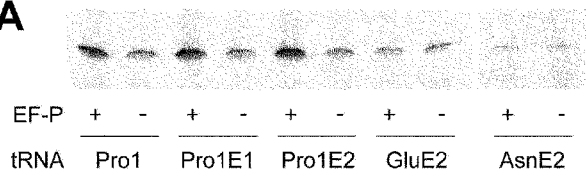
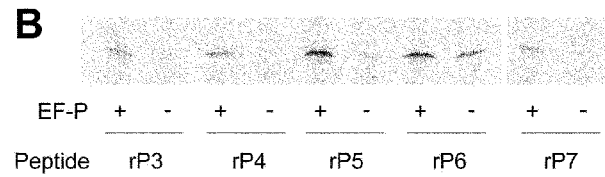
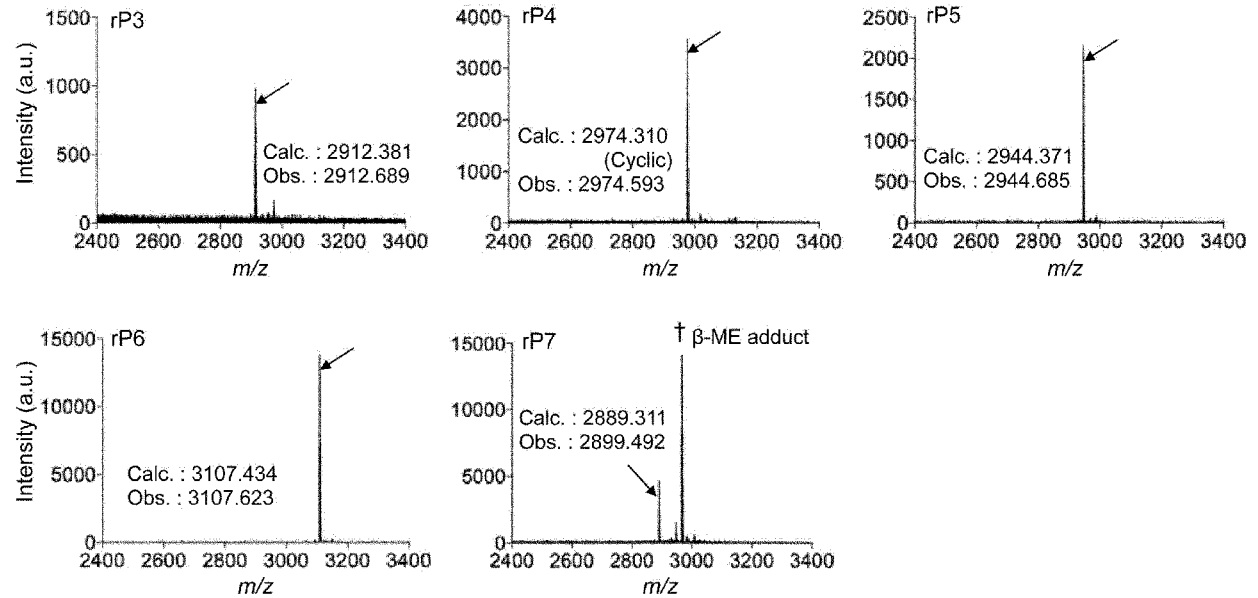
[図4]

A**B**

[図5]

A**B**

[6]

A**B****C**

[7]

A

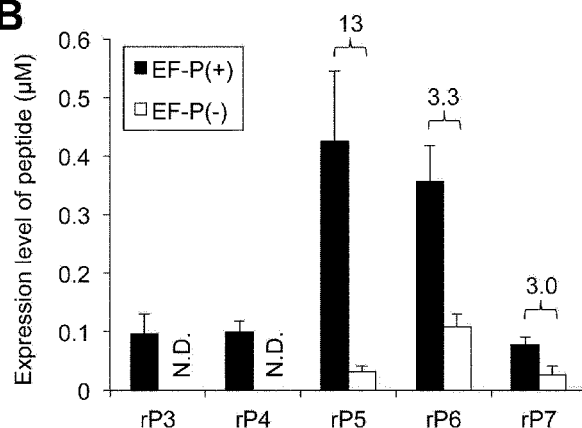
mRNA (mR3): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU AUU UAC UAC AUU AUU flag UAA
peptide (rP3): fM Y K K Y K K Y K D-A D-A Y Y D-A D-A flag (stop)

mRNA (mR4): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU AUU UAC UAC CAU CAU flag UAA
peptide (rP4): fM Y K K Y K K Y K D-A D-A Y Y D-C D-C flag (stop)

mRNA (mR5): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU AUU UAC UAC ACU ACU flag UAA
peptide (rP5): fM Y K K Y K K Y K D-A D-A Y Y D-S D-S flag (stop)

mRNA (mR6): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU UAC ACU UAC AUU UAC ACU flag UAA
peptide (rP6): fM Y K K Y K K Y K D-A Y D-S Y D-A Y D-S flag (stop)

mRNA (mR7): AUG UAC AAG AAG UAC AAA AAG UAC AAA ACU UAC AUU UAC CAU flag UAA
peptide (rP7): fM Y K K Y K K Y K D-S Y D-A Y D-C flag (stop)

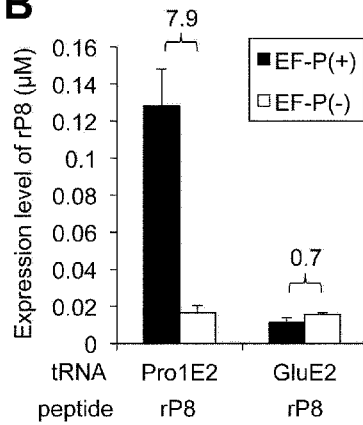
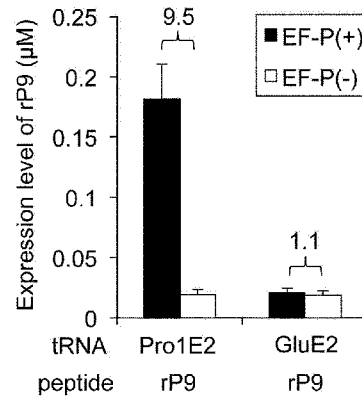
B

[図8]

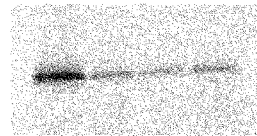
A

mRNA (mR8): AUG UAC AAG AAG UAC AAA AAG UAC AAA **CAU ACU AUU ACU CAU** flag UAA
 peptide (rP8): fM Y K K Y K K Y K **D-C D-S D-A D-S D-C** flag (stop)
└────────── S ─────────┘

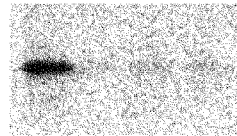
mRNA (mR9): **AUG GCU GCU CAU** AAG AAG AAG flag UAA
 peptide (rP9): D-^{ClAc}F **D-S D-S D-C** K K K flag (stop)
└──────── S ─────────┘

B**C**

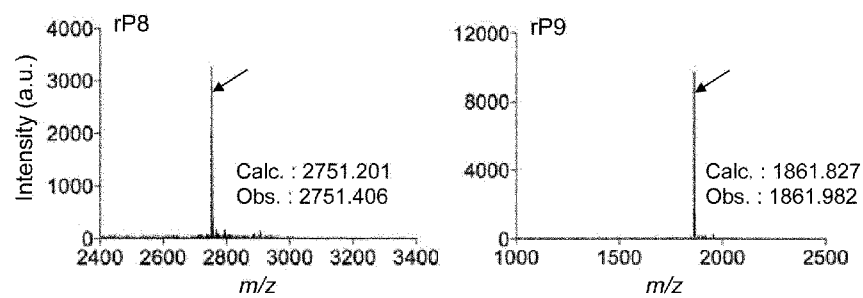
[図9]

A

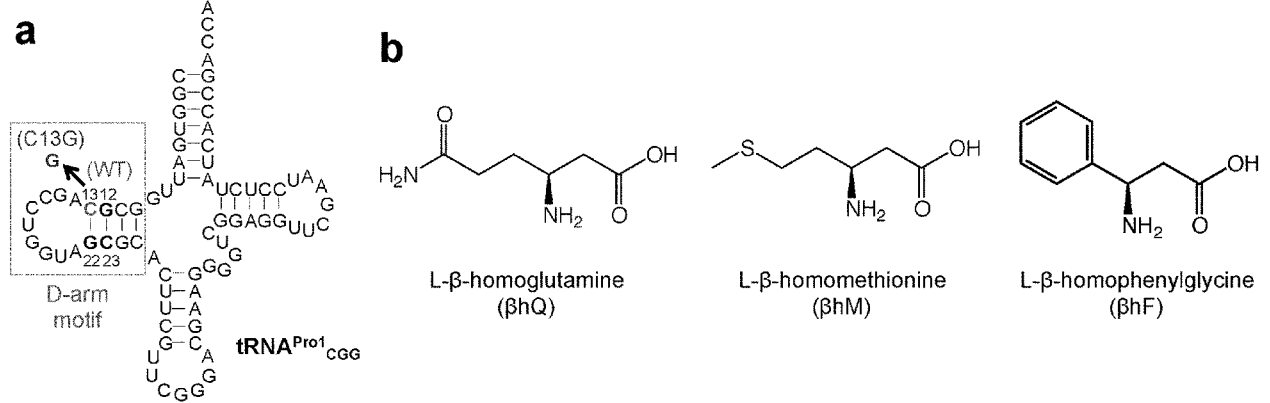
EF-P	+	-	+	-
tRNA	Pro1E2	GluE2	Pro1E2	GluE2
Peptide	rP8			

B

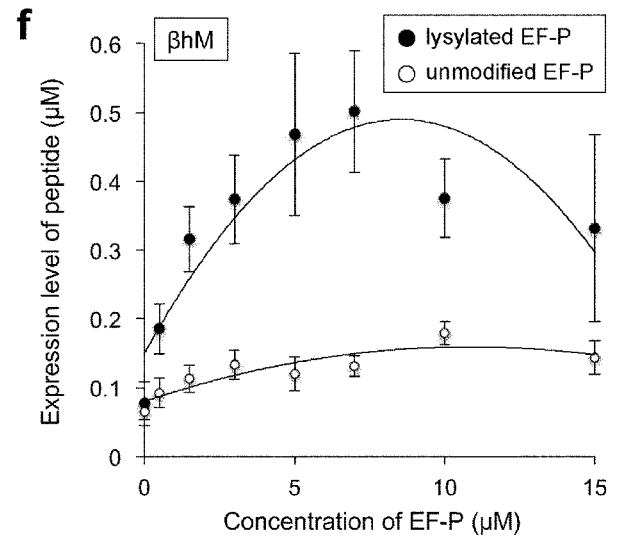
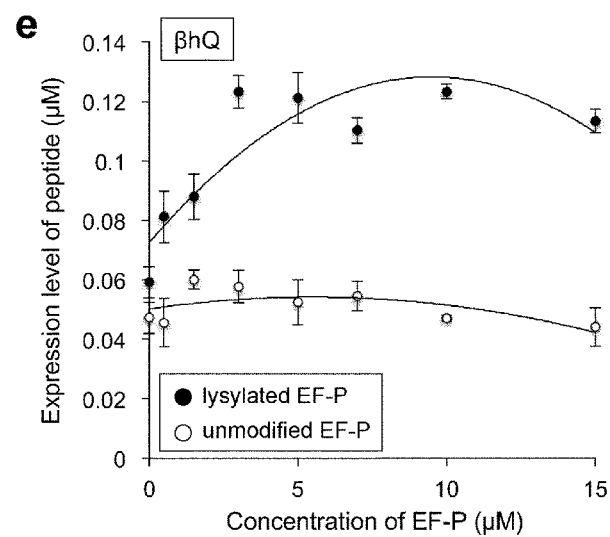
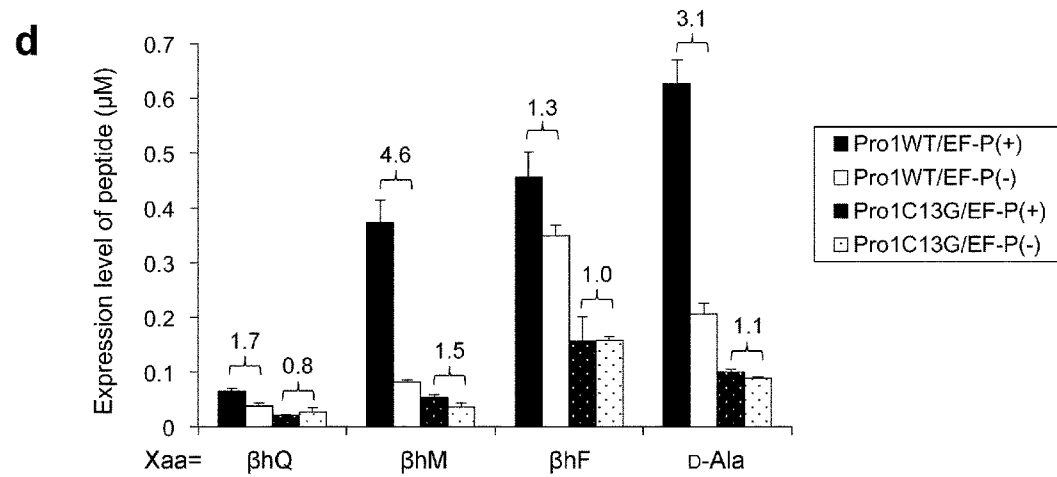
EF-P	+	-	+	-
tRNA	Pro1E2	GluE2	Pro1E2	GluE2
Peptide	rP9			

C

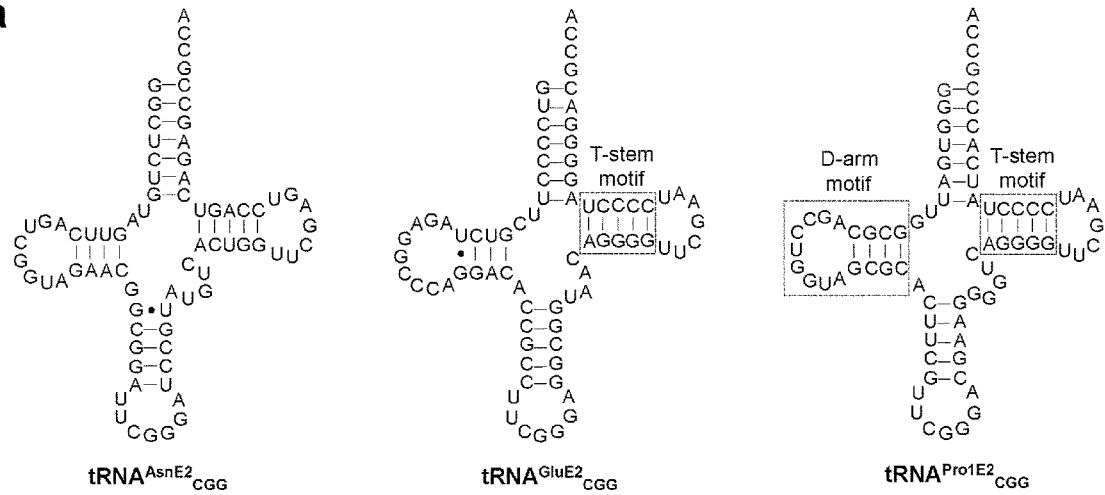
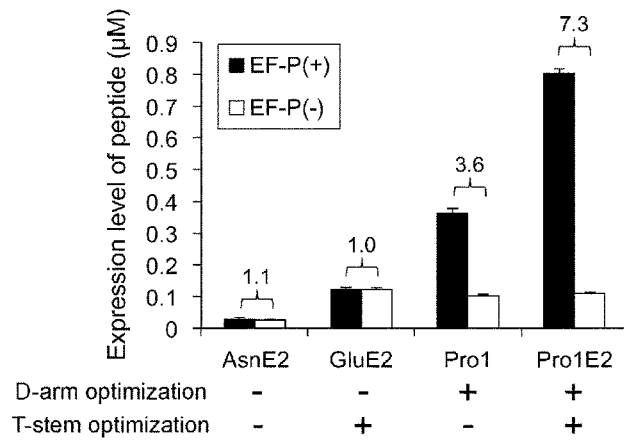
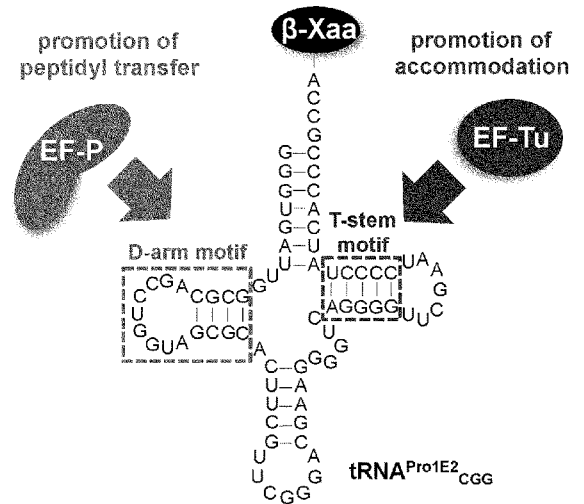
[10]



c mRNA (mR1): AUG UAC AAG AAG UAC AAA AAG UAC AAA CCG CCG GGU flag UAA
 reprogrammed peptide (rP1): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys Xaa Xaa Gly flag (stop)



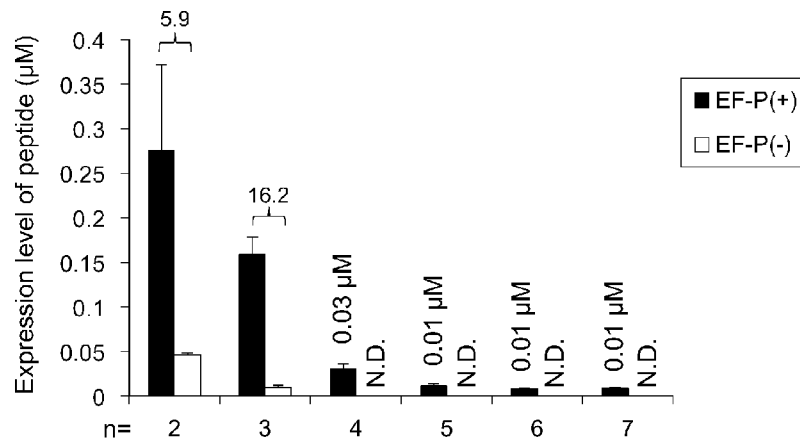
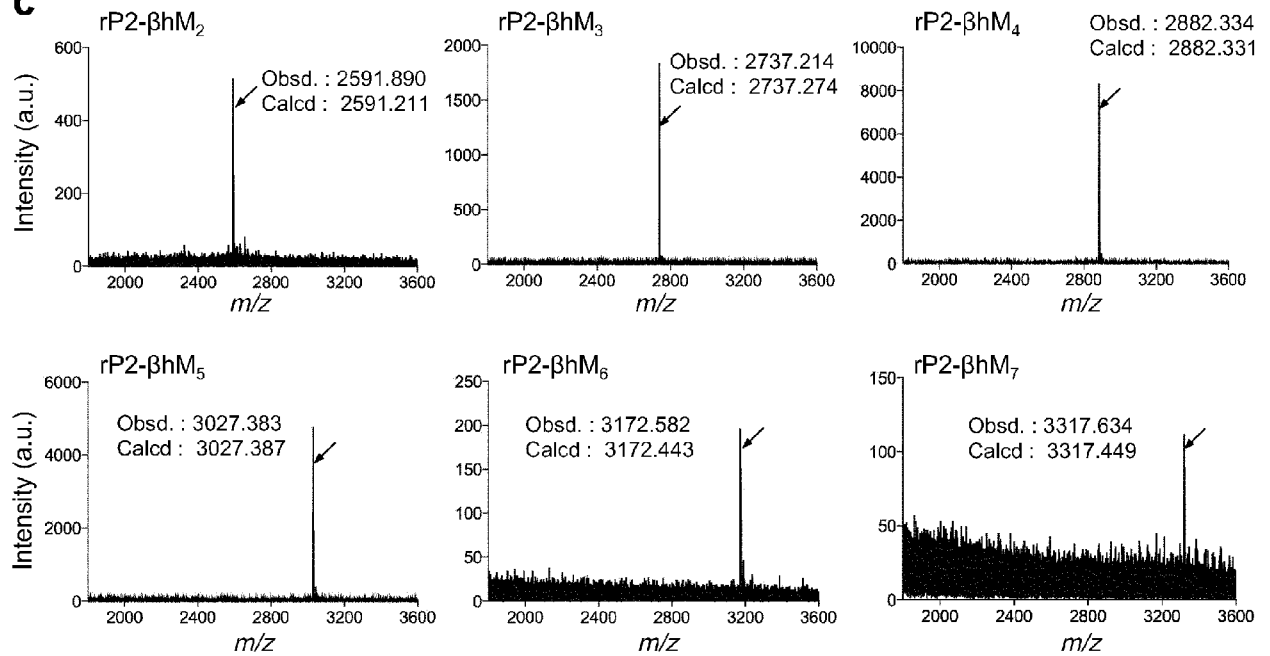
[11]

a**b****c**

[12]

a

mRNA (mR2): AUG UAC AAG AAG UAC AAA AAG UAC AAA (CCG)_n flag UAA
 reprogrammed peptide (rP2): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM_n flag (stop)

b**c**

[13]

a

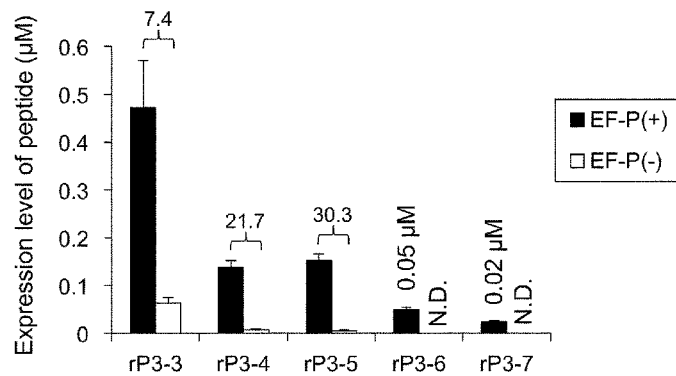
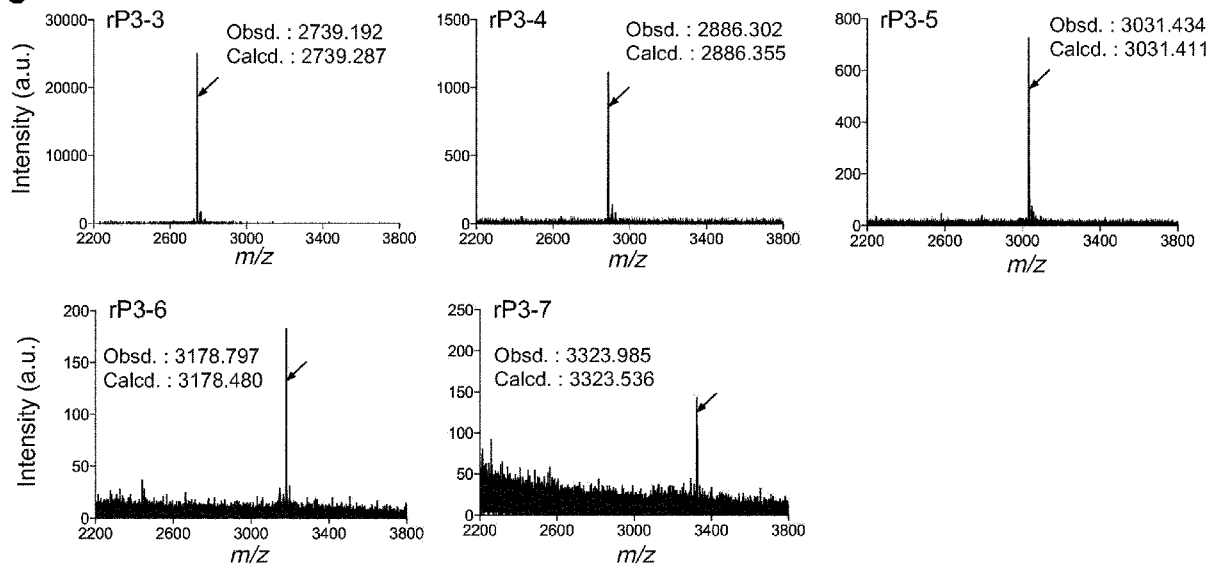
mRNA (mR3-3): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU CAU AUU flag UAA
 reprogrammed peptide (rP3-3): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF β hM flag (stop)

mRNA (mR3-4): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU CAU AUU CAU flag UAA
 reprogrammed peptide (rP3-4): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF β hM β hF flag (stop)

mRNA (mR3-5): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU CAU AUU CAU AUU flag UAA
 reprogrammed peptide (rP3-5): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF β hM β hF β hM flag (stop)

mRNA (mR3-6): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU CAU AUU CAU AUU CAU flag UAA
 reprogrammed peptide (rP3-6): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF β hM β hF β hM β hF flag (stop)

mRNA (mR3-7): AUG UAC AAG AAG UAC AAA AAG UAC AAA AUU CAU AUU CAU AUU CAU AUU flag UAA
 reprogrammed peptide (rP3-7): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF β hM β hF β hM β hF β hM flag (stop)

b**c**

[14]

a

mRNA (mR4): AUG UAC AAG AAG UAC AAA AAG UAC AAA **CAU** UAC **AUU** UAC **CAU** flag UAA
 reprogrammed peptide (rP4): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hF Tyr β hM Tyr β hF flag (stop)

mRNA (mR5): AUG UAC AAG AAG UAC AAA AAG UAC AAA **ACU** UAC **AUU** UAC **CAU** flag UAA
 reprogrammed peptide (rP5): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hQ Tyr β hM Tyr β hF flag (stop)

mRNA (mR6): AUG UAC AAG AAG UAC AAA AAG UAC AAA **AUU AUU** UAC UAC **CAU CAU** flag UAA
 reprogrammed peptide (rP6): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hM Tyr Tyr β hF β hF flag (stop)

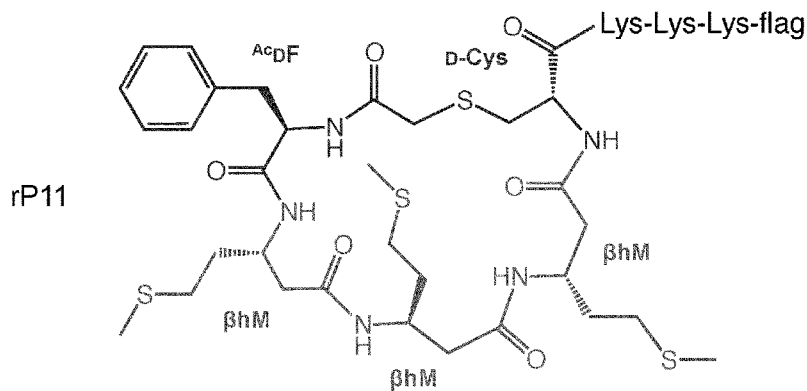
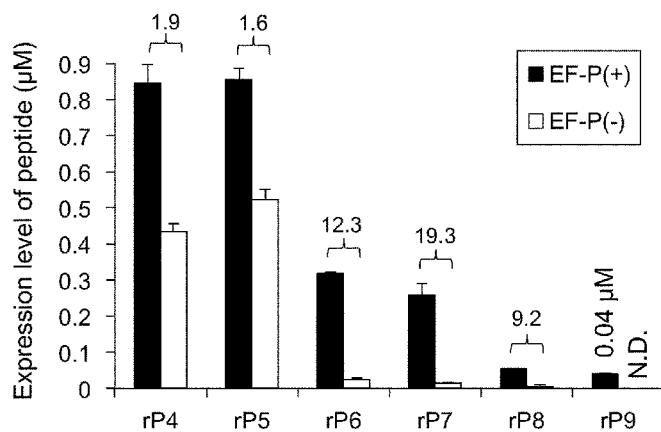
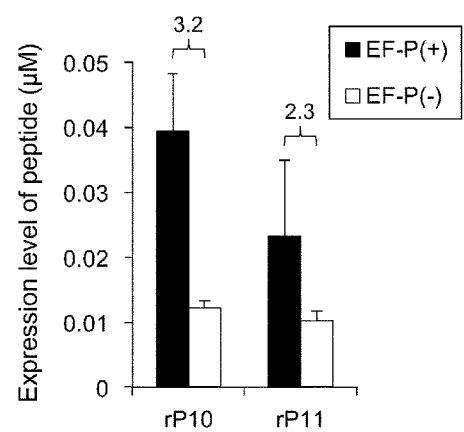
mRNA (mR7): AUG UAC AAG AAG UAC AAA AAG UAC AAA **AUU CAU** UAC UAC **AUU CAU** flag UAA
 reprogrammed peptide (rP7): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hF Tyr Tyr β hM β hF flag (stop)

mRNA (mR8): AUG UAC AAG AAG UAC AAA AAG UAC AAA **AUU AUU** UAC UAC **CAU CAU** flag UAA
 reprogrammed peptide (rP8): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hM β hM Tyr Tyr D-Ala D-Ala flag (stop)

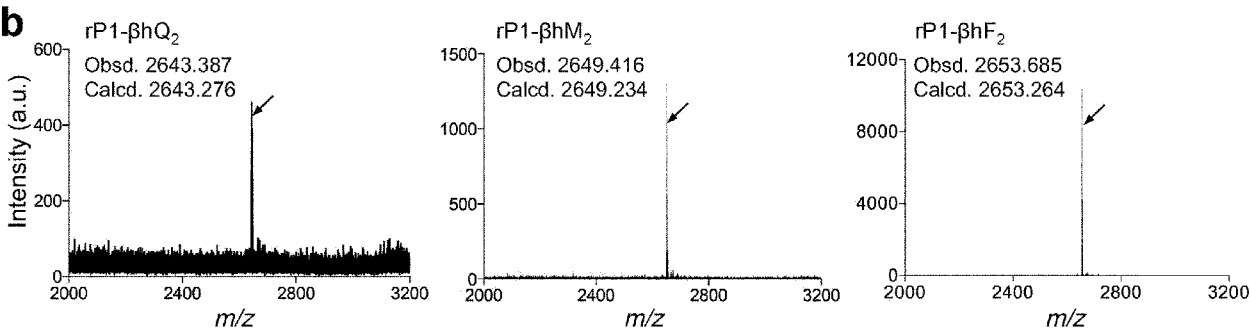
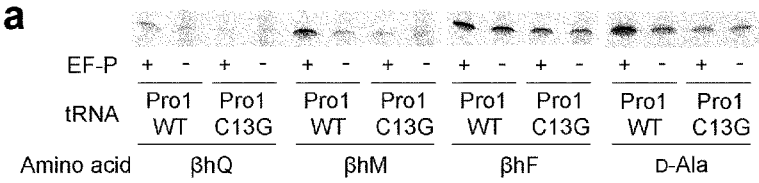
mRNA (mR9): AUG UAC AAG AAG UAC AAA AAG UAC AAA **CAU ACU AUU ACU CAU** flag UAA
 reprogrammed peptide (rP9): fMet Tyr Lys Lys Tyr Lys Lys Tyr Lys β hF D-Ser β hM D-Ser β hF flag (stop)

mRNA (mR10): **AUG ACU ACU CAU** AAG AAG AAG flag UAA
 reprogrammed peptide (rP10): C^{IAcDF} β hM β hM D-Cys Lys Lys Lys flag (stop)

mRNA (mR11): **AUG ACU ACU ACU CAU** AAG AAG AAG flag UAA
 reprogrammed peptide (rP11): C^{IAcDF} β hM β hM β hM D-Cys Lys Lys Lys flag (stop)

b**c****d**

[15]



[16]

