

ERRATA

Bacillopeptidase F of *Bacillus subtilis*: Purification of the Protein and Cloning of the Gene

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Volume 172, no. 3, p. 1474, Fig. 6: Further examination of the primary sequence data led to the identification of errors in the nucleotide sequence of the *bpr* gene. Correction of the corresponding amino acid sequence indicated that the primary translation product of *bpr* has a large C-terminal region that is removed during maturation. The correct sequence appears below (GenBank accession no. M29035).

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-199 TAA CAA ACA GAT AAT TAG ACC CAT TTA TTT TGT GAG ATT TTA TCA TTT CAT
ATA TAT GGA AAT TGA ACG ACA CGA AAC GAC AAT ATC TGT AAT TCA GAT TGT
CTA CAG TTA ATA TAC AGC GAT GTT CTG ACA AAC CAT TCA TTA TTA AAA GGA
GGG ACG ACA CTT TTT TTA AAA AGC ATG TTG AAA AAG GGG GAT GAA A

+1 ATG AGG AAA AAA ACG AAA AAC AGA CTC ATC AGC TCT GTT TTA AGT ACA GTT
Met Arg Lys Lys Thr Lys Asn Arg Leu Ile Ser Ser Val Leu Ser Thr Val

52 GTC ATC AGT TCA CTG CTG TTT CCG GGA GCA GCC GGG GCA AGC AGT AAA GTC
Val Ile Ser Ser Leu Leu Phe Pro Gly Ala Ala Gly Ala Ser Ser Lys Val

103 ACC TCA CCT TCT GTT AAA AAG GAG CTT CAA TCT GCG GAA TCC ATT CAA AAC
Thr Ser Pro Ser Val Lys Lys Glu Leu Gln Ser Ala Glu Ser Ile Gln Asn

154 AAG ATT TCG AGT TCA TTA AAG AAA AGC TTT AAA AAG AAA GAA AAA ACG ACT
Lys Ile Ser Ser Ser Leu Lys Lys Ser Phe Lys Lys Lys Glu Lys Thr Thr

205 TTT CTG ATT AAA TTT AAA GAT CTG GCT AAC CCA GAA AAA GCG GCA AAA GCG
Phe Leu Ile Lys Phe Lys Asp Leu Ala Asn Pro Glu Lys Ala Ala Lys Ala

256 GCT GTT AAA AAA GCG AAA TCG AAG AAG CTG TCT GCC GCT AAG ACG GAA TAT
Ala Val Lys Lys Ala Lys Ser Lys Lys Leu Ser Ala Ala Lys Thr Glu Tyr

307 CAA AAG CGT TCT GCT GTT GTG TCA TCT TTA AAA GTC ACA GCC GAT GAA TCC
Gln Lys Arg Ser Ala Val Val Ser Ser Leu Lys Val Thr Ala Asp Glu Ser

358 CAG CAA GAT GTC CTA AAA TAC TTG AAC ACC CAG AAA GAT AAA GGA AAT GCA
Gln Gln Asp Val Leu Lys Tyr Leu Asn Thr Gln Lys Asp Lys Gly Asn Ala

409 GAC CAA ATT CAT TCT TAT TAT GTG GTG AAC GGG ATT GCT GTT CAT GCC TCA
Asp Gln Ile His Ser Tyr Tyr Val Val Asn Gly Ile Ala Val His Ala Ser

460 AAA GAG GTT ATG GAA AAA GTG GTG CAG TTT CCC GAA GTG GAA AAG GTG CTT
Lys Glu Val Met Glu Lys Val Val Gln Phe Pro Glu Val Glu Lys Val Leu

511 CCT AAT GAG AAA GCG CAG CTT TTT AAG TCA TCC TCC CCA TTT AAT ATG AAA
Pro Asn Glu Lys Arg Gln Leu Phe Lys Ser Ser Ser Pro Phe Asn Met Lys

562 AAA GCA CAG AAA GCT ATT AAA GCA ACT GAC GGT GTG GAA TGG AAT GTA GAC
Lys Ala Gln Lys Ala Ile Lys Ala Thr Asp Gly Val Glu Trp Asn Val Asp

613 CAA ATC GAT GCC CCA AAA GCT TGG GCA CTT GGA TAT GAT GGA ACT GGC ACG
Gln Ile Asp Ala Pro Lys Ala Trp Ala Leu Gly Tyr Asp Gly Thr Gly Thr

664 GTT GTT GCG TCC ATT GAT ACC GGG GTG GAA TGG AAT CAT CCG GCA TTA AAA
Val Val Ala Ser Ile Asp Thr Gly Val Glu Trp Asn His Pro Ala Leu Lys

715 GAG AAA TAT CCG GGA TAT AAT CCG GAA AAT CCT AAT GAG CTT GAA AAT GAA
Glu Lys Tyr Arg Gly Tyr Asn Pro Glu Asn Pro Asn Glu Pro Glu Asn Glu

766 ATG AAC TGG TAT GAT GCC GTA GCA GGC GAG GCA AGC CCT TAT GAT GAT TTG
Met Asn Trp Tyr Asp Ala Val Ala Gly Glu Ala Ser Pro Tyr Asp Asp Leu

817 GCT CAT GGA ACC CAC GTG ACA GGC ACG ATG GTG GGC TCT GAA CCT GAT GGA
Ala His Gly Thr His Val Thr Gly Thr Met Val Gly Ser Glu Pro Asp Gly

868 ACA AAT CAA ATC GGT GTA GCA CCT GGC GCA AAA TGG ATT GCT GTT AAA GCG
Thr Asn Gln Ile Gly Val Ala Pro Gly Ala Lys Trp Ile Ala Val Lys Ala

919 TTC TCT GAA GAT GGC GGC ACT GAT GCT GAC ATT TTG GAA GCT GGT GAA TGG
Phe Ser Glu Asp Gly Gly Thr Asp Ala Asp Ile Leu Glu Ala Gly Glu Trp

970 GTT TTA GCA CCA AAG GAC GGG GAA GGA AAT CCC CAC CCG GAA ATG GCT CCT
Val Leu Ala Pro Lys Asp Ala Glu Gly Asn Pro His Pro Glu Met Ala Pro

1021 GAT GTT GTC AAT AAC TCA TGG GGA GGG GGC TCT GGA CTT GAT GAA TGG TAC
Asp Val Val Asn Asn Ser Trp Gly Gly Ser Gly Leu Asp Glu Trp Tyr

1072 AGA GAC ATG GTC AAT GCC TGG CGT GCG GCC GAT ATT TTC CCT GAG TTT TCA
Arg Asp Met Val Asn Ala Trp Arg Ala Ala Asp Ile Phe Pro Glu Phe Ser

1123 GCG GGG AAT ACG GAT CTC TTT ATT CCC GGC GGG CCT GGT TCT ATC GCA AAT
Ala Gly Asn Thr Asp Leu Phe Ile Pro Gly Gly Pro Gly Ser Ile Ala Asn

1174 CCG GCA AAC TAT CCA GAA TCG TTT GCA ACT GGA GCG ACT GAT ATC AAT AAA
Pro Ala Asn Tyr Pro Glu Ser Phe Ala Thr Gly Ala Thr Asp Ile Asn Lys

1225 AAG CTC GCT GAC TTT TCT CTT CAA GGG CCA TCT CCA TAT GAT GAA ATA AAG
Lys Leu Ala Asp Phe Ser Leu Gln Gly Pro Ser Pro Tyr Asp Glu Ile Lys

1276 CCG GAA ATA TCT GCA CCG GGC GTT AAT ATT CGT TCA TCC GTT CCC GGT GAG
Pro Glu Ile Ser Ala Pro Gly Val Asn Ile Arg Ser Ser Val Pro Gly Gln

1327 ACA TAT GAG GAT GGT TGG GAC GGC ACA TCA ATG GCA GGG CCG CAT GTA TCC
Thr Tyr Glu Asp Gly Trp Asp Gly Thr Ser Met Ala Gly Pro His Val Ser

1378 GCT GTT GCT GCA CTG CTG AAA CAG GCG AAT GCC TCA CTT TCT GTT GAT GAG
Ala Val Ala Ala Leu Leu Lys Gln Ala Asn Ala Ser Leu Ser Val Asp Glu

1429 ATG GAG GAT ATA TTA ACC AGC ACG GCT GAA CCG CTC ACG GAT TCA ACA TTT
Met Glu Asp Ile Leu Thr Ser Thr Ala Glu Pro Leu Thr Asp Ser Thr Phe

1480 CCT GAT TCA CCG AAT AAC GGA TAT GGC CAT GGT CTG GTG AAT GCT TTT GAT
Pro Asp Ser Pro Asn Asn Gly Tyr Gly His Gly Leu Val Asn Ala Phe Asp

1531 GCT GTA TCC GCT GTT ACA GAT GGA TTA GGG AAA GCG GAA GGA CAA GTT TCT
Ala Val Ser Ala Val Thr Asp Gly Leu Gly Lys Ala Glu Gly Gln Val Ser

1582 GTA GAG GGG GAT GAC CAA GAG CCT CCT GTC TAT CAG CAT GAG AAA GTA ACT
Val Glu Gly Asp Asp Gln Glu Pro Pro Val Tyr Gln His Glu Lys Val Thr

1633 GAA GCT TAT GAA GGT GGC ACG CTA CCA CTG ACT TTG ACA GCT GAA GAC AAT
Glu Ala Tyr Glu Gly Gly Ser Leu Pro Leu Thr Leu Thr Ala Glu Asp Asn

1684 GTG AGT GTG ACA TCT GTA AAG CTG TCC TAC AAG CTT GAT CAA GGT GAA TGG
Val Ser Val Thr Ser Val Lys Leu Ser Tyr Lys Leu Asp Gln Gly Glu Trp

1735 ACA GAA ATA ACG GCT AAA CGA ATC AGC GGT GAT CAT CTA AAA GGA ACG TAT
Thr Glu Ile Thr Ala Lys Arg Ile Ser Gly Asp His Leu Lys Gly Thr Tyr

1786 CAG GCA GAG ATC CCA GAT ATA AAA GGA ACT AAA CTA AGC TAT AAG TGG ATG
Gln Ala Glu Ile Pro Asp Ile Lys Gly Thr Lys Leu Ser Tyr Lys Trp Met

1837 ATT CAC GAT TTT GGC GGT CAT GTC GTT TCG TCT GAC GTA TAC GAT GTA ACA
Ile His Asp Phe Gly Gly His Val Val Ser Ser Asp Val Tyr Asp Val Thr

1888 GTG AAA CCA AGC ATC ACG CCG GGA TAT AAG CAG GAC TTT GAA ACT GCA CCC
Val Lys Pro Ser Ile Thr Ala Gly Tyr Lys Gln Asp Phe Glu Thr Ala Pro

1939 GGC GGC TGG GTT GCG AGC GGA ACA AAT AAT AAC TGG GAA TGG GGA GTT CCG
Gly Gly Trp Val Ala Ser Gly Thr Asn Asn Asn Trp Glu Trp Gly Val Pro

1990 TCA ACT GGC CCA AAT ACA GCA GCA TCC GGA GAA AAA GTA TAT GGA ACG AAT
Ser Thr Gly Pro Asn Thr Ala Ala Ser Gly Glu Lys Val Tyr Gly Thr Asn

2041 TTG ACA GAA AAT TAT GCC AAC TCA GCA AAC ATG AAC CTT GTT ATG CCT CCT
Leu Thr Gly Asn Tyr Ala Asn Ser Ala Asn Met Asn Leu Val Met Pro Pro

2092 ATT AAA GCA CCT GAT TCA GGA AGT CTG TTC CTT CAA TTT AAA AGC TGG CAC
Ile Lys Ala Pro Asp Ser Gly Ser Leu Phe Leu Gln Phe Lys Ser Trp His

2143 AAT TTA GAG GAT TTT GAT TAC GGC TAC GTT TTT GTT CTT CCG GAA GGT
Asn Leu Glu Asp Asp Phe Asp Tyr Gly Tyr Val Phe Val Leu Pro Glu Gly
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2194	GAA AAG AAT TGG GAG CAG GCT GGT GTC TAT AAC GGA AAG ACA TCA AGC TGG Glu Lys Asn Trp Glu Gln Ala Gly Val Tyr Asn Gly Lys Thr Ser Ser Trp	3316	AAA CCT GAT CCG TAT TCA CCT GGA TTG GCA ATG GAT GAA ACC GGC GAC AAT Lys Pro Asp Pro Tyr Ser Pro Gly Leu Ala Met Asp Glu Thr Gly Gln Asn
2245	ACG GAC GAA GAA ATT GAT TTA TCG GCT TAT AAA GGC CAA AAC ATT CAA GTG Thr Asp Glu Glu Ile Asp Leu Ser Ala Tyr Lys Gly Gln Asn Ile Gln Val	3367	TCC GGC CGC AAC TGG CAG TAT ATA GAT GGA AAG TGG CAG CCA GGT GAC AAA Ser Gly Arg Asn Trp Gln Tyr Ile Asp Gly Lys Trp Gln Pro Gly Asp Lys
2296	ATG TTT AAC CTT GAA TCT GAT GAA AGC ATT GCA AAA GAG GGC TGG TAT ATT Met Phe Asn Leu Gln Ser Asp Glu Ser Ile Ala Lys Asp Gly Trp Tyr Ile	3418	GCG GAT GGC AAC TAT ATG ATT CGC GCA TTA GTT GAT TAT GAA GCT GCT GTA Ala Asp Gly Asn Tyr Met Ile Arg Ala Leu Val Asp Tyr Glu Ala Ala Val
2347	GAT GAT GTA GTG CTT TCT GAC AAA TCA GCC GGA AAA ACA GTC AAA AAG AAT Asp Asp Val Val Leu Ser Asp Lys Ser Ala Gly Lys Thr Val Lys Lys Asn	3469	CCT GAG ATT ACT TCA CCG ACA GAC AAA TCA TAC ACA AAT AAG GAT AGC GTC Pro Glu Ile Thr Ser Pro Thr Asp Lys Ser Tyr Thr Asn Lys Asp Ser Val
2398	AAG CTG GGC GTC GAA AAG CCG TCT GGA AAG CAA AAG AAA CCA GTA AAT Lys Leu Gly Val Glu Lys Pro Ser Gly Lys Gln Lys Lys Lys Pro Val Asn	3520	ACT GTA AAA GGA AAC GCT TCT CCT GGC ACA ACG GTA CAC ATT TAT AAT GGA Thr Val Lys Gly Asn Ala Ser Pro Gly Thr Thr Val His Ile Tyr Asn Gly
2449	CCG AAA AAG GCT AAG CCA TCT GCA AAC ACA GCG GTA AAA CAT CAG AAC AAG Pro Lys Lys Ala Lys Pro Ser Ala Asn Thr Ala Val Lys His Gln Asn Lys	3571	GAG AAA GAA GCA GGA GAA ACG AAA GCT GCT GCG GAT GGC ACG TTC CAT GCA Glu Lys Glu Ala Gly Glu Thr Lys Ala Ala Ala Asp Gly Thr Phe His Ala
2500	GCT ATA CAG CCT CAA GTT TTG CCG CTC AAG GCA CAA GTC AGT GTA GTG GAA Ala Ile Gln Pro Gln Val Leu Pro Leu Lys Ala Gln Val Ser Val Val Glu	3622	GGC ATC ATA CTC AAC AAG GGT GAA AAT GAG CTG ACG GCA ACT GCA TCA ACT Gly Ile Ile Leu Asn Lys Gly Glu Asn Glu Leu Thr Ala Thr Ala Ser Thr
2551	ACA GGA AAA TCA ACA TAT TCA GAT CAA TCC ACA GGG CAG TAC ACG CTG AAG Thr Gly Lys Ser Thr Tyr Ser Asp Gln Ser Thr Gly Thr Tyr Thr Leu Lys	3673	GAC AAC GGA ACA ACA GAT GCC TCC AGC CCA ACT ACG GTC ACG CTT GAT CAA Asp Asn Gly Thr Thr Asp Ala Ser Ser Pro Ile Thr Val Thr Leu Asp Gln
2602	CAC AAA GCG GGA GAC TAT ACG CTT ATG GCA AAA GCA TAT GGT TAT CAG TCG His Lys Ala Gly Asp Tyr Thr Leu Met Ala Glu Ala Tyr Gly Tyr Gln Ser	3724	GAA AAG CCT GAA TTA ACA CTG GAC AAT CCA AAG GAT GGC GGG AAA ACA AAT Glu Lys Pro Glu Leu Thr Leu Asp Asn Pro Lys Asp Gly Gly Lys Thr Asn
2653	AAA ACA CAA AAA GTA TCT TTA AAG ACG GAT CAG ACG ACA CAA GCT AAT TTT Lys Thr Gln Lys Val Ser Leu Lys Thr Asp Gln Thr Thr Gln Ala Asn Phe	3775	AAA GAA ACG CTG ACT GTC AAA GGG GCT GTA TCC GAT GAC AAT CTG AAA GAC Lys Glu Thr Leu Thr Val Lys Gly Ala Val Ser Asp Asp Asn Leu Lys Asp
2704	ACG TTA GAA GAG ATG AAG AAG GGC ACA TTA AAA GGC ACG GTC ATC AAT AAA Thr Leu Glu Glu Met Lys Lys Gly Thr Leu Lys Gly Thr Val Ile Asn Lys	3826	GTC AAG GTG AAT GGC AAA AAA GCA ACA GTA GCT GAT GGT TCA TAG TCA GCC Val Lys Val Asn Gly Lys Lys Ala Thr Val Ala Asp Gly Ser Tyr Ser Ala
2755	ACG ACA GGA GAG CCG GTA ACA GGC GCT TCC GTT TAT GTT GTA GAG GAT GCT Thr Thr Gly Glu Pro Val Thr Gly Ala Ser Val Tyr Val Val Glu Asp Ala	3877	CGT ATT CTT TTG GAA AAT GGA AGA AAT GAA ATC AAG GTA ATT CCT ACA GAC Arg Ile Leu Leu Glu Asn Gly Arg Asn Glu Ile Lys Val Ile Ala Thr Asp
2806	GCG GTG GAA CCG GCT ATG ACA AAC GAC AAA GGT GAA TAT ATG CTG GAG GCC Ala Val Glu Pro Ala Met Thr Asn Asp Lys Gly Glu Tyr Met Leu Glu Ala	3928	TTG GCA GGC AAC AAA ACG ACG AAA AAG ACA GTC ATT GAT GTG AAC TTT GAC Leu Ala Gly Asn Lys Thr Thr Lys Lys Thr Val Ile Asp Val Asn Phe Asp
2857	TAT GAA GGC GCT TAT ACG ATT AAA GTC GCT GCA CCG GGT TAT TAC AGT GAT Tyr Glu Gly Ala Tyr Thr Ile Lys Val Ala Ala Pro Gly Tyr Tyr Ser Asp	3979	AAG CCT GTC ATT TCC GGC TTA ATT CCG GGA GAG GAT AAA AAC TTA AAA GCC Lys Pro Val Ile Ser Gly Leu Ile Pro Gly Glu Asp Lys Asn Leu Lys Ala
2908	GAA TTT TCC GTT GAG TTA AAA GGT GAT GTT ACA AAA GAA ACT GCA TTG AAG Glu Phe Ser Val Glu Leu Lys Gly Asp Val Thr Lys Glu Thr Ala Leu Lys	4030	GGT GAA TCT GTG AAA ATC GCT TTC TCA AGC GCT GAG GAT TTA GAT GCA ACG Gly Glu Ser Val Lys Ile Ala Phe Ser Ser Ala Glu Asp Leu Asp Ala Thr
2959	CCT TTC GTC GGT TAT CCG GGT GAA ATT GCA TAT GAT GAC GGA ACA CCG GAG Pro Phe Val Gly Tyr Pro Gly Glu Ile Ala Tyr Asp Asp Gly Thr Ala Glu	4081	TTT ACC ATT CGT ATG CCG CTG ACC AAT GCA AGA GCG AGT GTG CAA AAT GCC Phe Thr Ile Arg Met Pro Leu Thr Asn Ala Arg Ala Ser Val Gln Asn Ala
3010	AAT GCC AAT TCC TAT TTT GCT GCC GGT AAC GGA TGG GCG GTA AAA ATG ACG Asn Ala Asn Ser Tyr Phe Ala Ala Gly Asn Gly Trp Ala Val Lys Met Thr	4132	ACC GAA CTC CCG TTA AGA GAA ATC TCT CCG GGG AGA TAT GAA GGC TAT TGG Thr Glu Leu Pro Leu Arg Glu Ile Ser Pro Gly Arg Tyr Glu Gly Tyr Trp
3061	CTC GCT GAC GGC AAG GAC AAA GGC ATG CTT ACA GGA GGG CTG TTC AGA TTC Leu Ala Asp Gly Lys Asp Lys Lys Met Leu Thr Gly Gly Leu Phe Arg Phe	4183	ACT GCC ACT TCT TCT ATT AAA GCA AAA GGA GCA AAA GTA GAA GTG ATC GTC Thr Ala Thr Ser Ile Lys Ala Lys Glu Ala Lys Val Glu Val Ile Val
3112	TGG GAT ACA GAG TTC CCT GAT CCG GGC GGC ACA GAG TTT AAG GTT GAG GTA Trp Asp Thr Glu Phe Pro Asp Pro Gly Gly Thr Glu Phe Lys Val Glu Val	4234	CGA GAT GAT TAT GGA AAT GAA ACA AGA AAA ACT GCG AAT GGA AAA CTT AAT Arg Asp Asp Tyr Gly Asn Glu Thr Arg Lys Thr Ala Asn Gly Lys Leu Asn
3163	TAC GAT GCC ACA GGA AAA GAC GGA GCA CCG GGC AAG AAA ATT GCA GGG CCA Tyr Asp Ala Thr Gly Lys Asp Gly Ala Pro Gly Lys Lys Ile Ala Gly Pro	4285	ATG AAC ACA GAA AAT TAA Met Asn Thr Glu Asn Stop
3214	TTT AAC GCG GAA GCT CTT CGC AAT GGC GAG TGG ACT AAG GTA GAT CTC AGT Phe Asn Ala Glu Ala Leu Arg Asn Gly Glu Trp Thr Lys Val Asp Leu Ser		GTG GAA AAA AAG CTG CCG TCA TTG GCA GCT TTT TTT ATA TCC TCT CAT TAT ACT TCC TCG ACA AAT TAA GCA GAT TTC CCT GAA AAA TTG TAT TTT CCT CTC AAC ATT AAT TGA CAG ACT TTC CCA CAG AGC TTG CTT TAT ACT TAT GAA GCA
3265	TCA AAA GGG ATT ATG GTC GAT AAA GAT TTT TAT CTC GTA TAT ATC CAG TCG Ser Lys Gly Ile Met Val Asp Lys Asp Phe Tyr Leu Val Tyr Ile Gln Ser		

Alternative Route for Biosynthesis of Amino Sugars in *Escherichia coli* K-12 Mutants by Means of a Catabolic Isomerase

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Volume 171, no. 12, p. 6590, Table 5, columns 1 and 2, headings: "Donor" should read "Recipient"; "Recipient" should read "Donor."

Page 6590, Table 5, column 5, line 5: "2 (6/48)" should read "0 (0/48)."