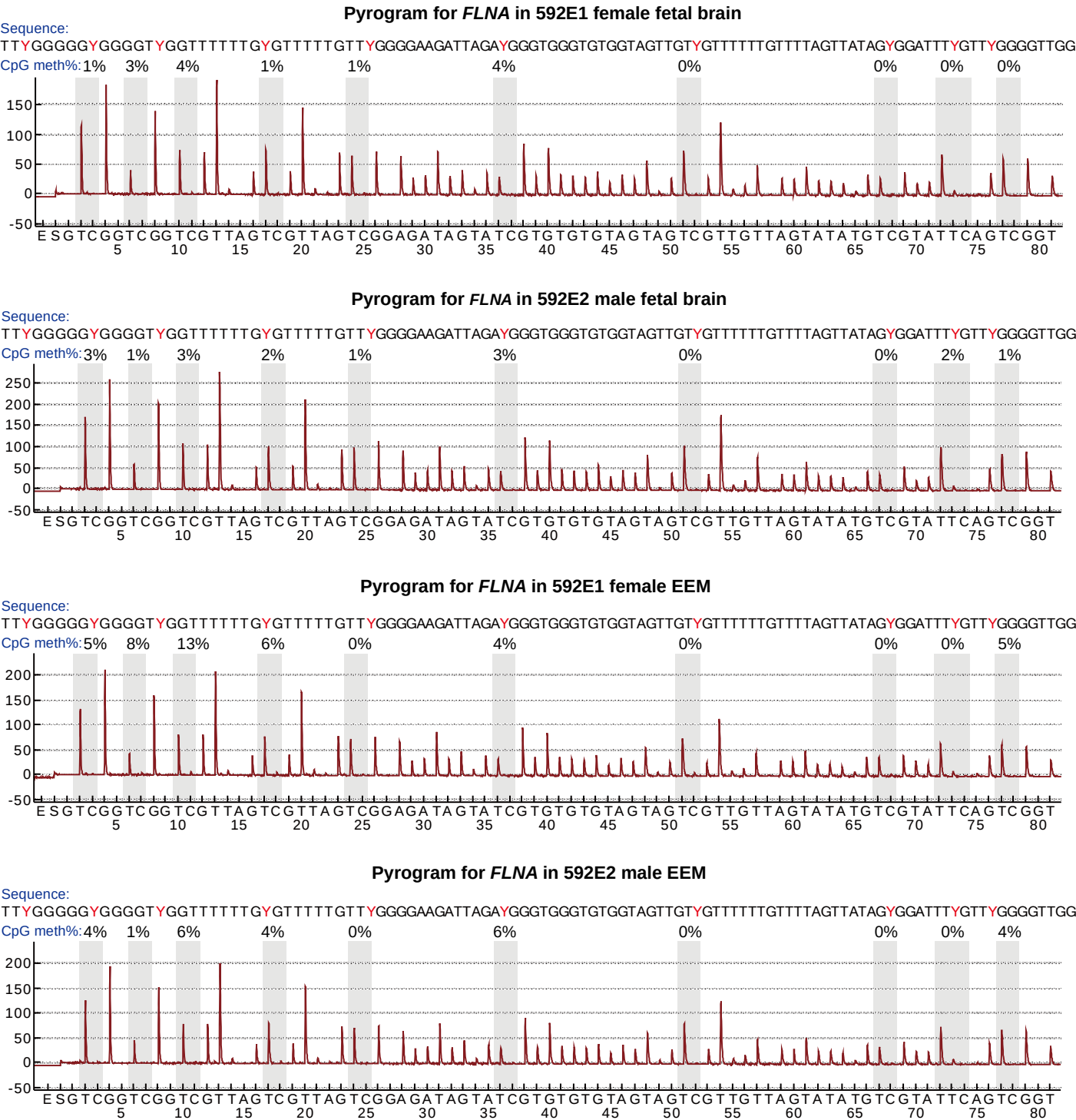
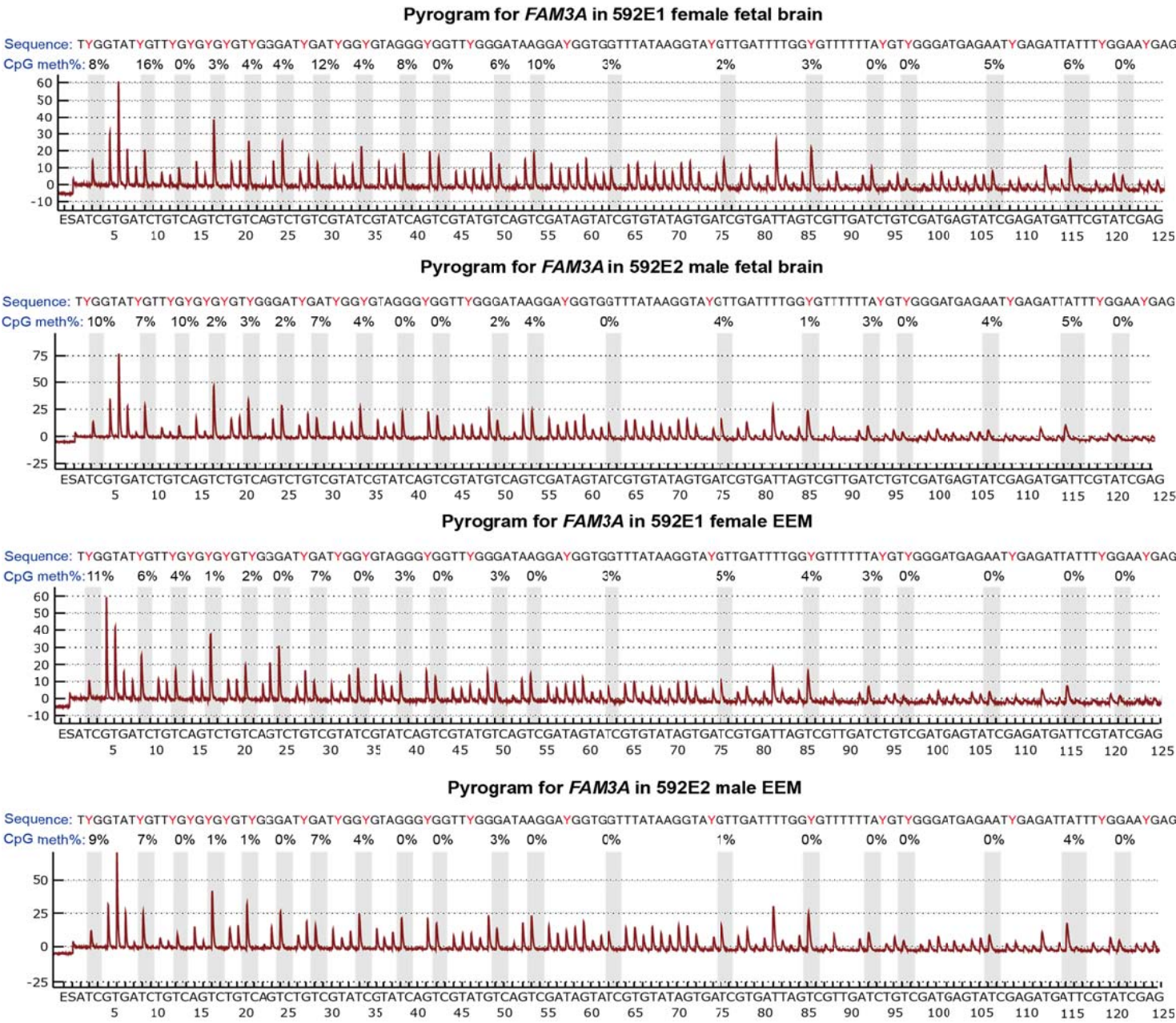


Data S4. Raw pyrograms from the PyroMark assays for DNA methylation quantification.

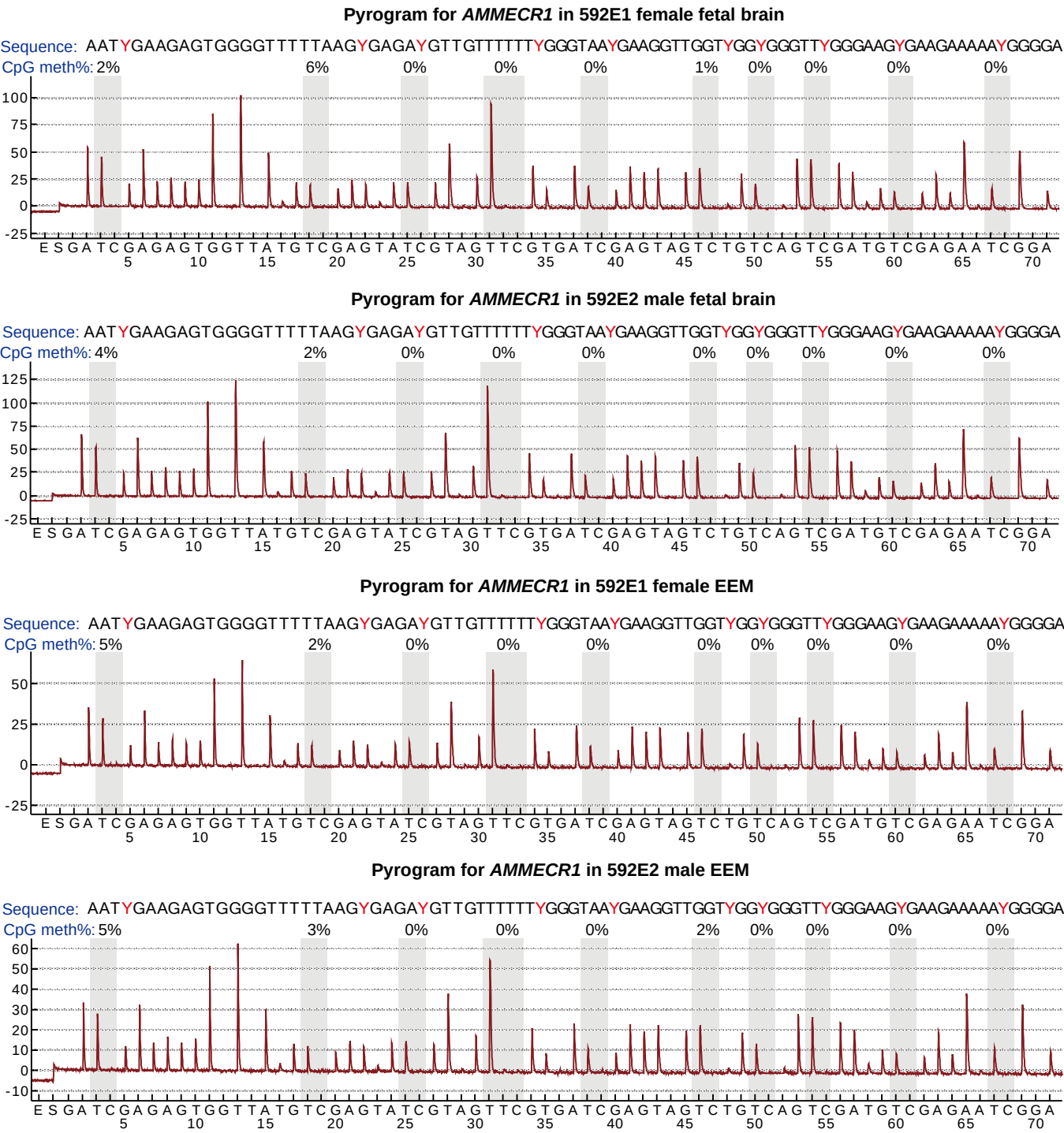
(A). Pyrograms for PyroMark analysis of the methylation profile at *FLNA* promoter CpG island. The methylation percentages for 10 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



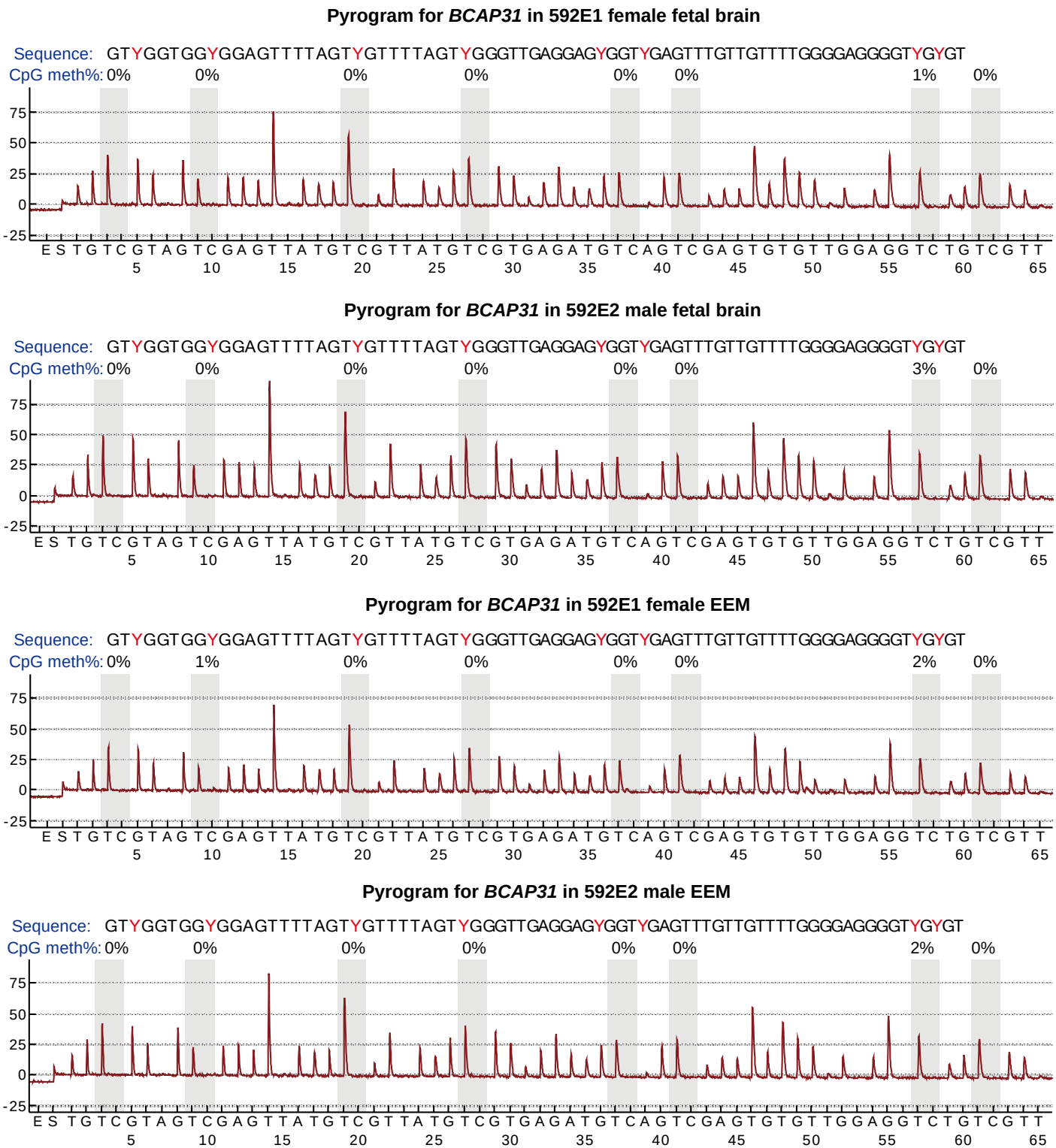
(B). Pyrograms for PyroMark analysis of the methylation profile at *FAM3A* promoter CpG island. The methylation percentages for 20 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



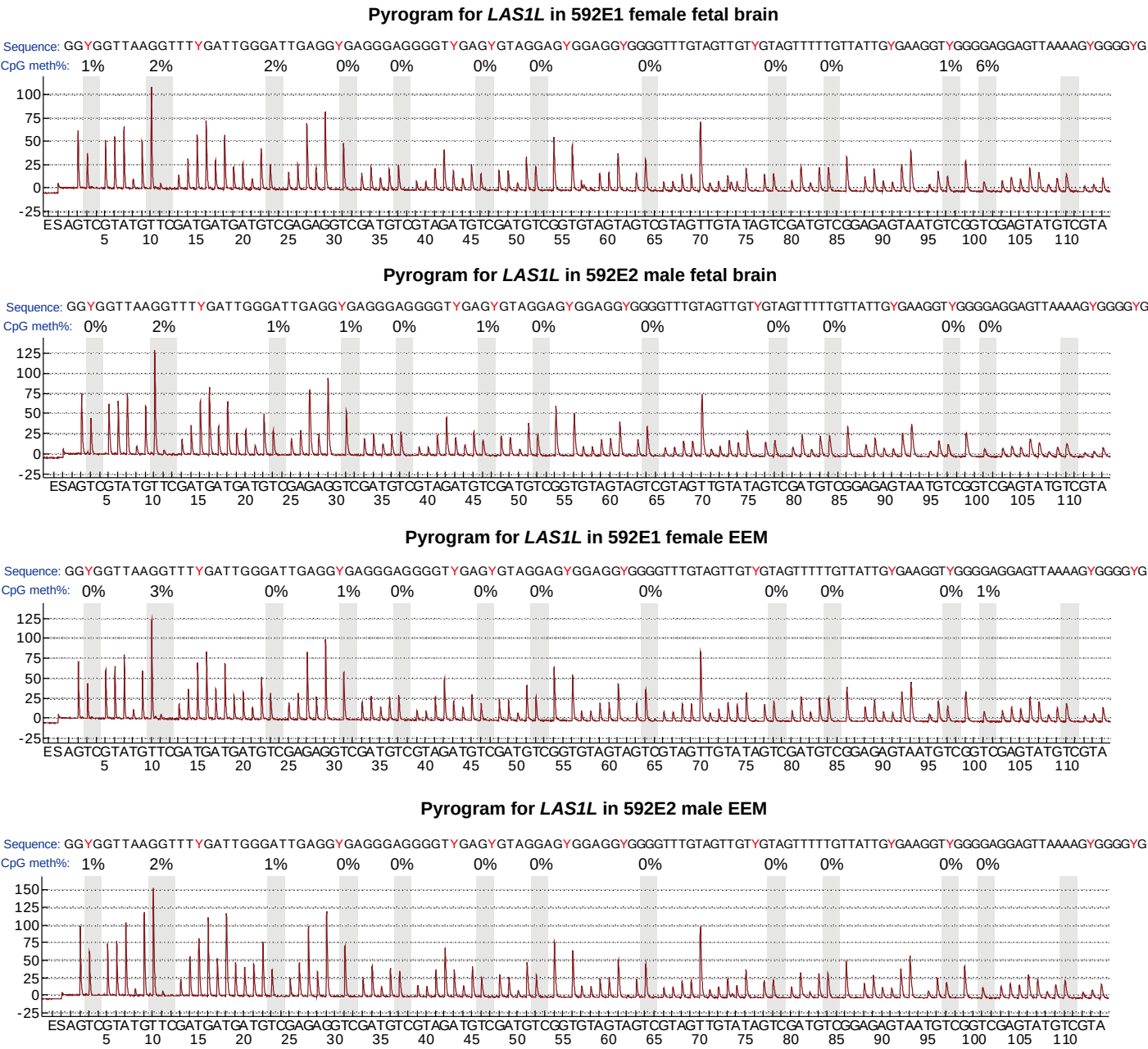
(C). Pyrograms for PyroMark analysis of the methylation profile at *AMMECR1* promoter CpG island. The methylation percentages for 10 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



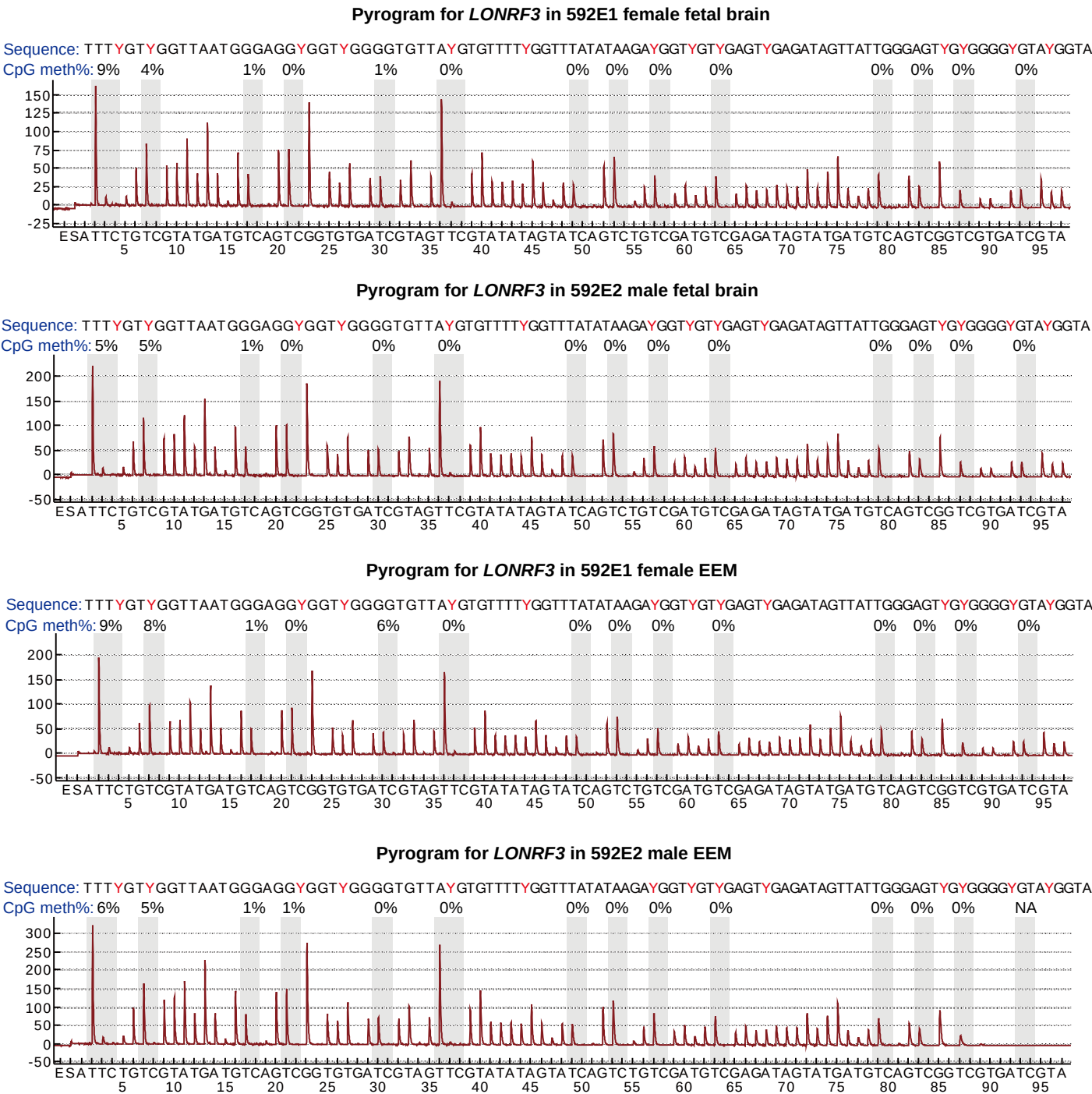
(D). Pyrograms for PyroMark analysis of the methylation profile at *BCAP31* promoter CpG island. The methylation percentages for 8 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



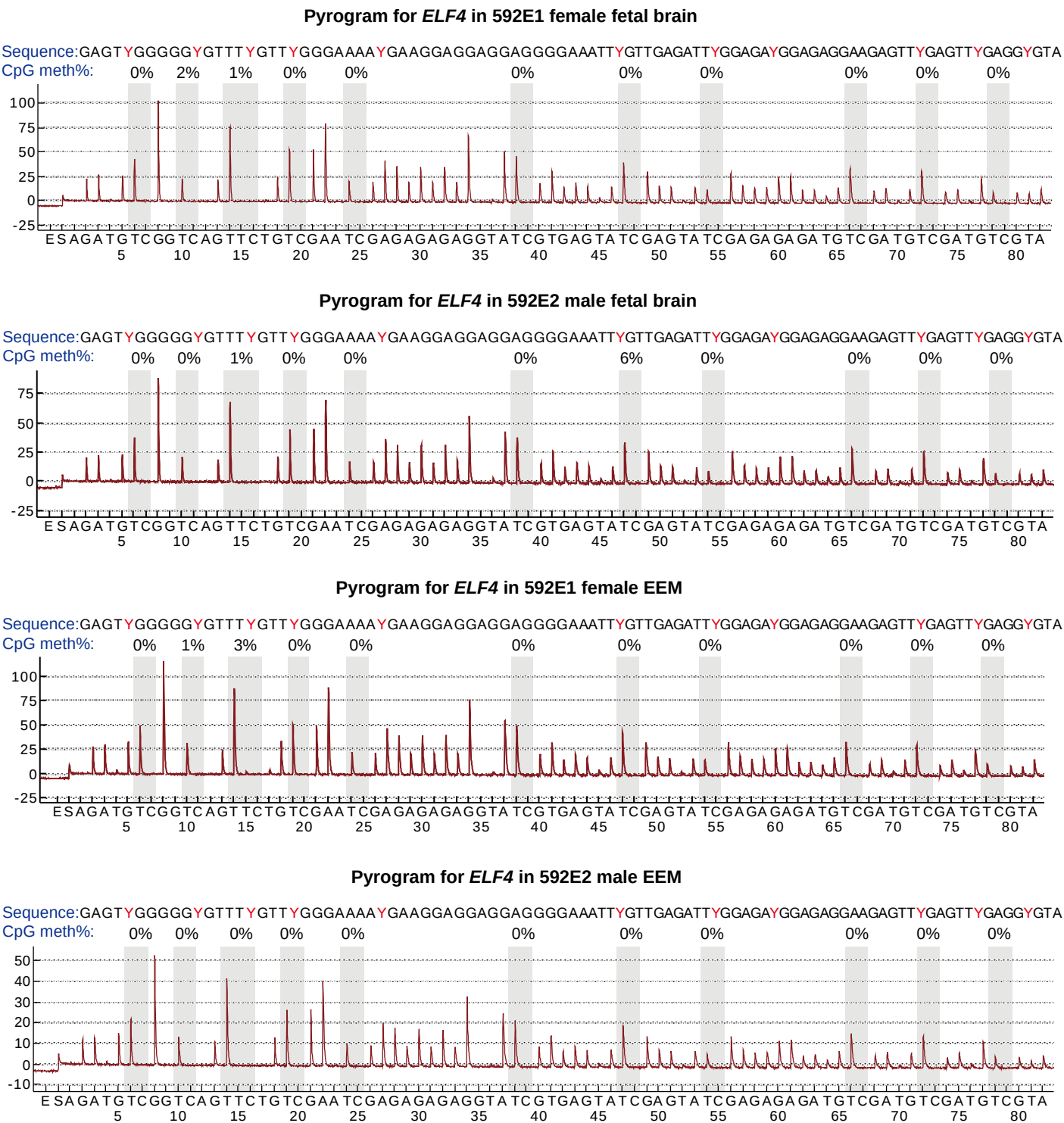
(E). Pyrograms for PyroMark analysis of the methylation profile at *LAS1L* promoter CpG island. The methylation percentages for 13 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



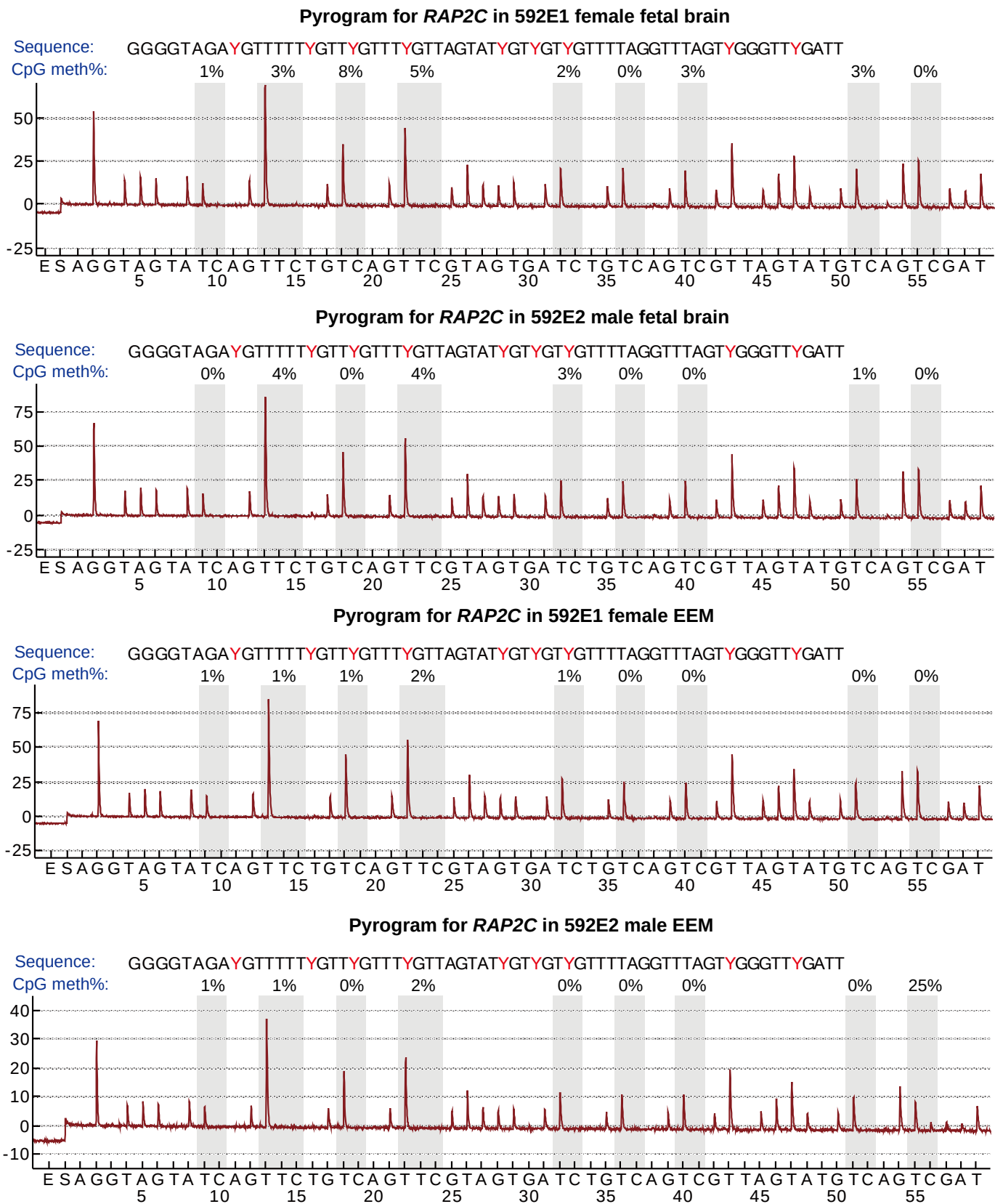
(F). Pyrograms for PyroMark analysis of the methylation profile at *LONRF3* promoter CpG island. The methylation percentages for 14 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



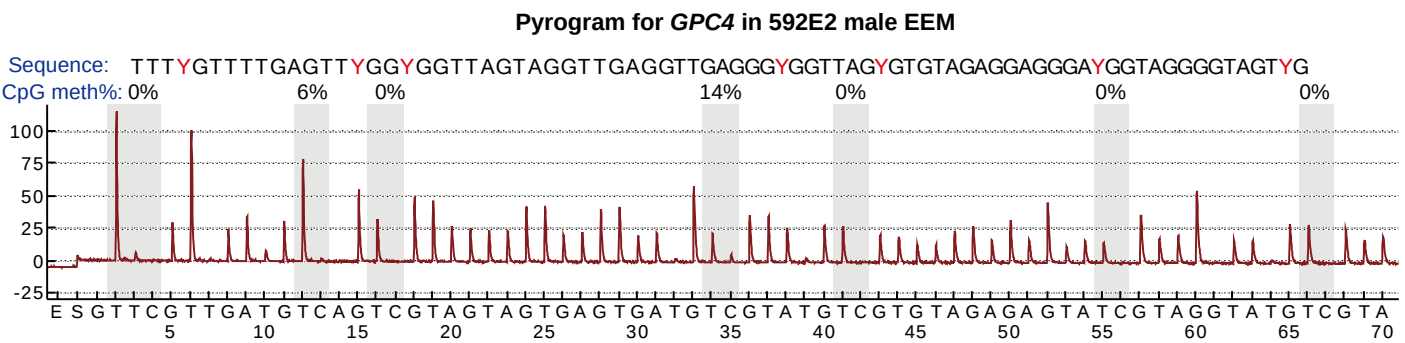
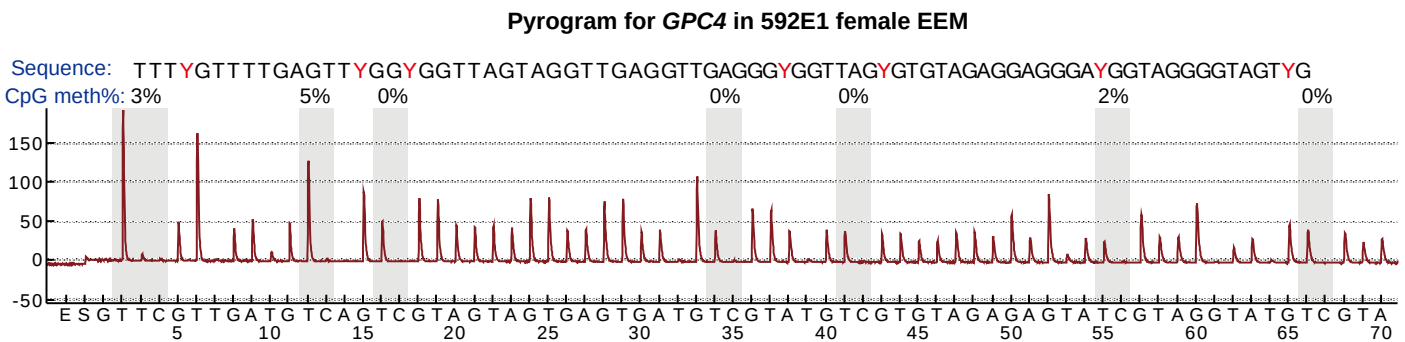
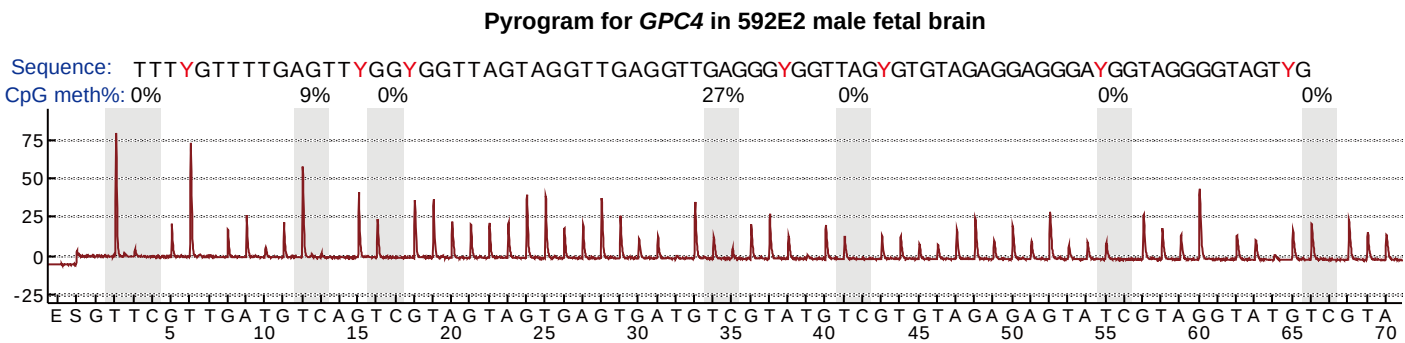
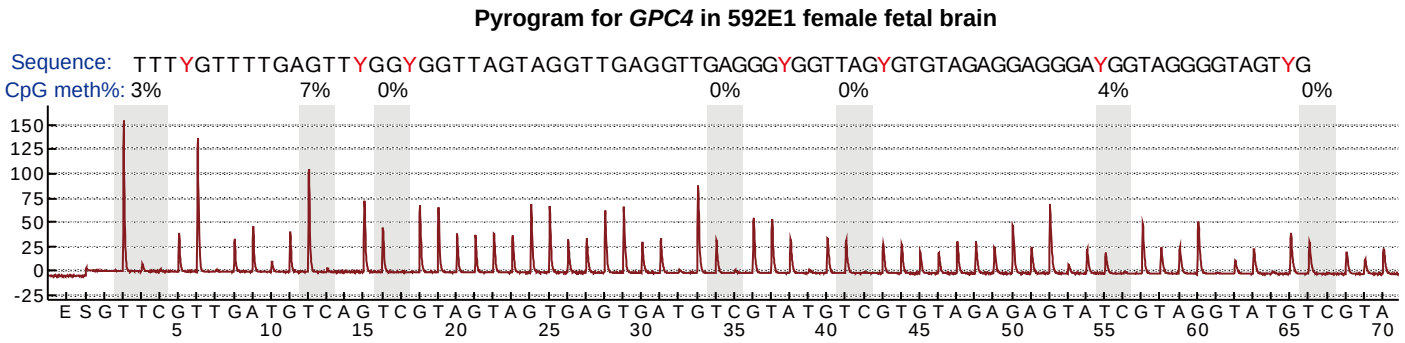
(G). Pyrograms for PyroMark analysis of the methylation profile at *ELF4* promoter CpG island. The methylation percentages for 11 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



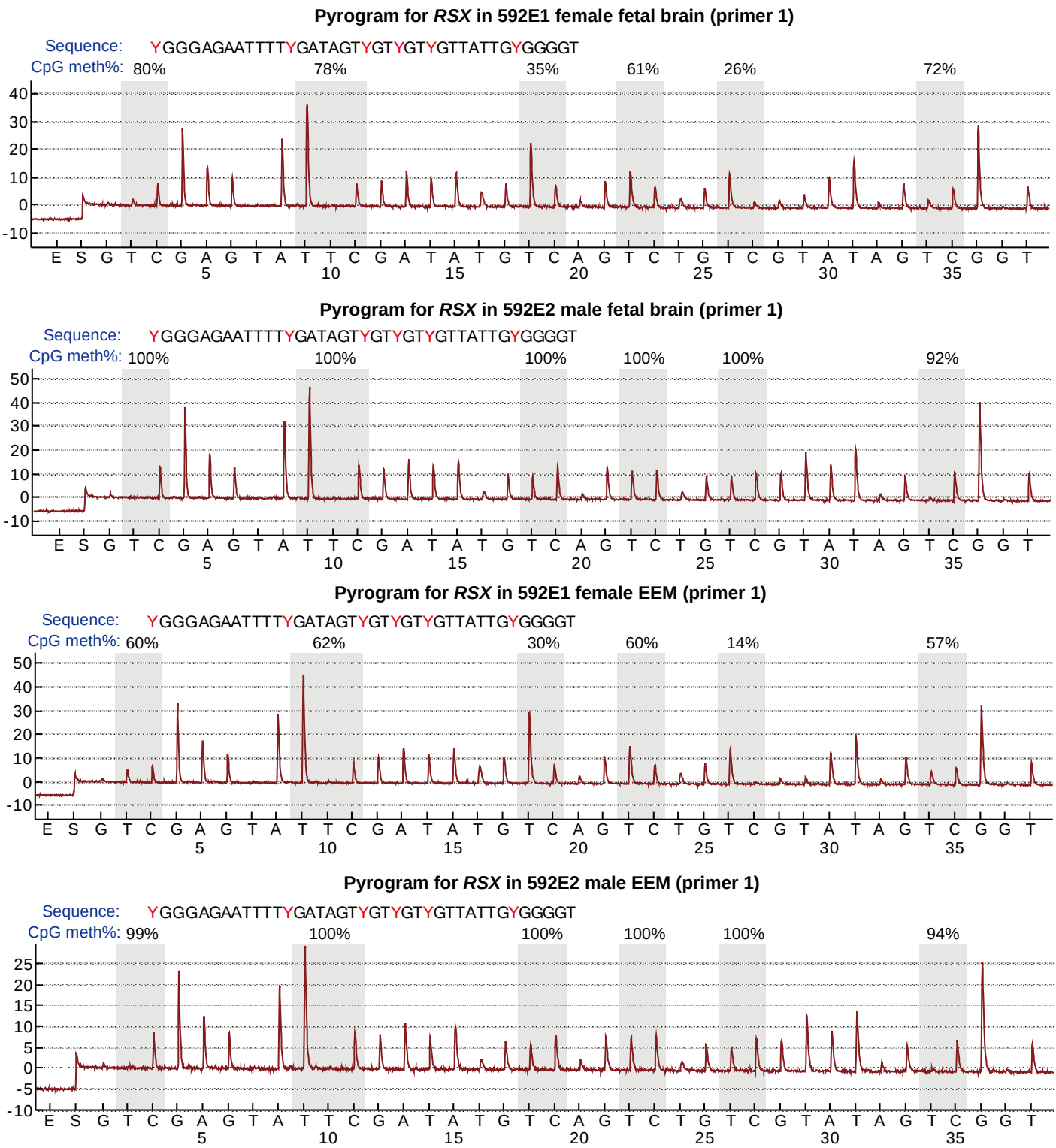
(H). Pyrograms for PyroMark analysis of the methylation profile at *RAP2C* promoter CpG island. The methylation percentages for 9 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



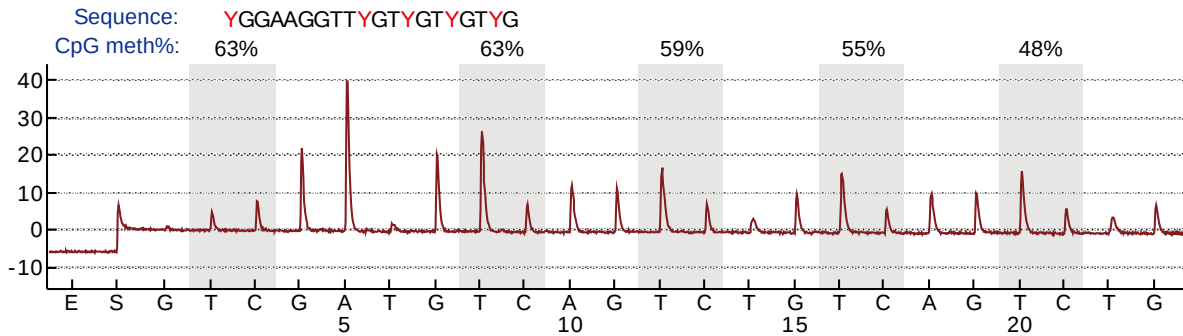
(I). Pyrograms for PyroMark analysis of the methylation profile at *GPC4* promoter CpG island. The methylation percentages for 7 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



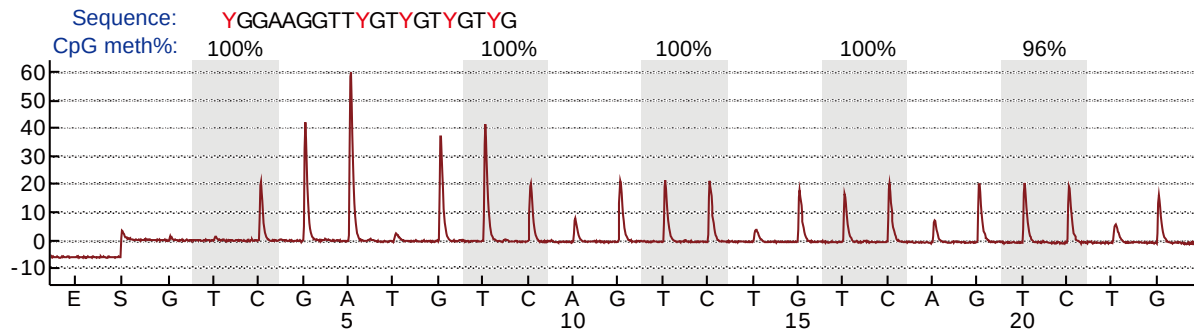
(J). Pyrograms for PyroMark analysis of the methylation profile at *RSX* promoter CpG island. The methylation percentages for a total of 23 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM) using four pyrosequencing primers (primer 1-4).



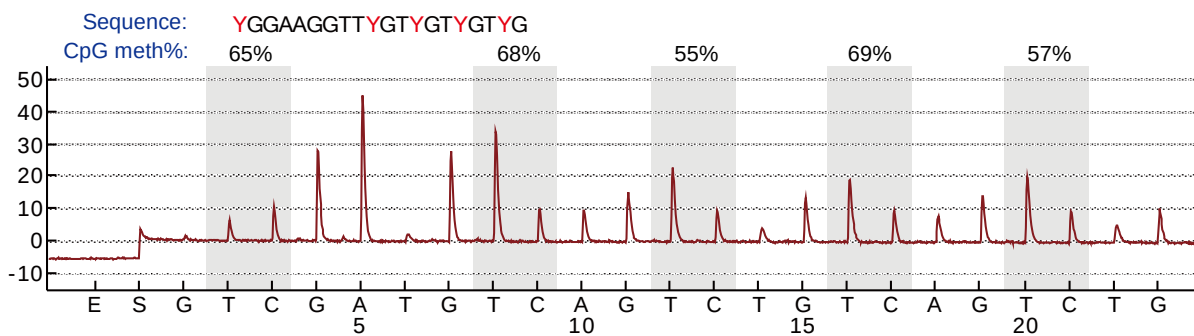
Pyrogram for RSX in 592E1 female fetal brain (primer 2)



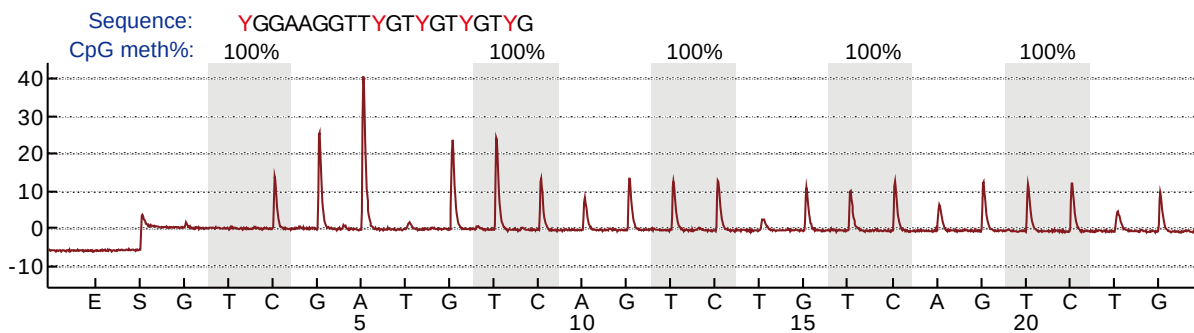
Pyrogram for RSX in 592E2 male fetal brain (primer 2)



Pyrogram for RSX in 592E1 female EEM (primer 2)

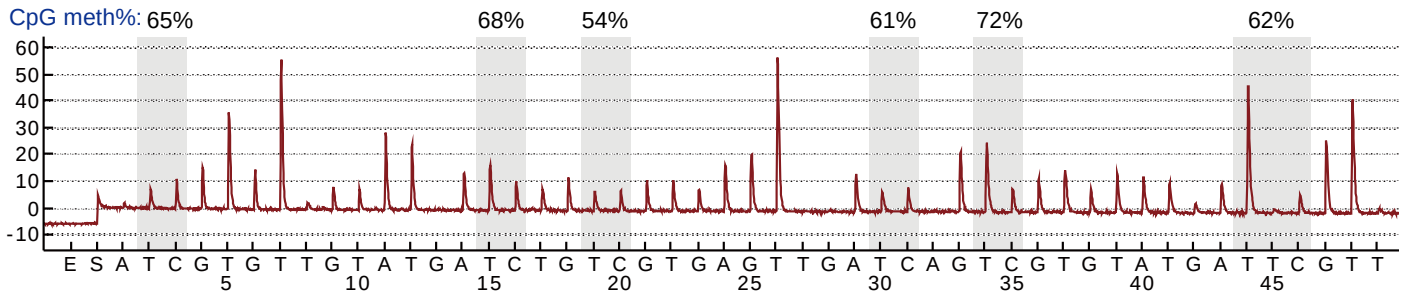


Pyrogram for RSX in 592E2 male EEM (primer 2)



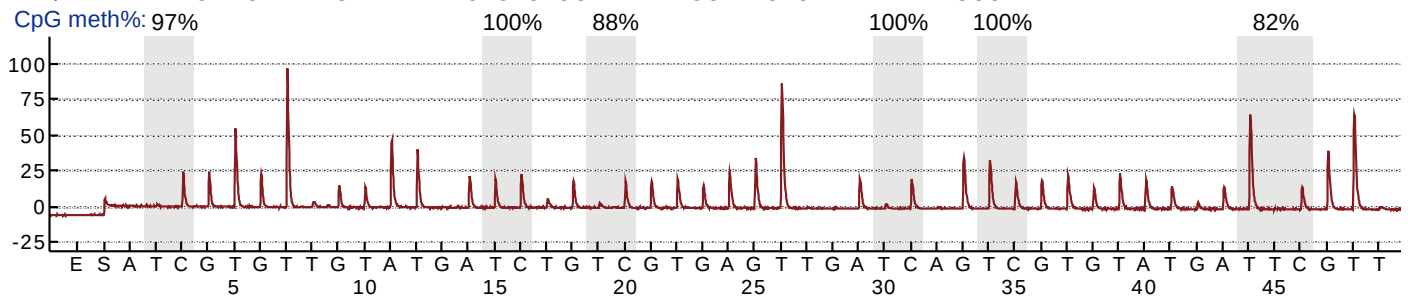
Pyrogram for RSX in 592E1 female fetal brain (primer 3)

Sequence: YGTTGTTTTGTAATTATYGYGTGAGGTTTTTAYGGTTYGTGTTATATTTTYGGGTTTTT



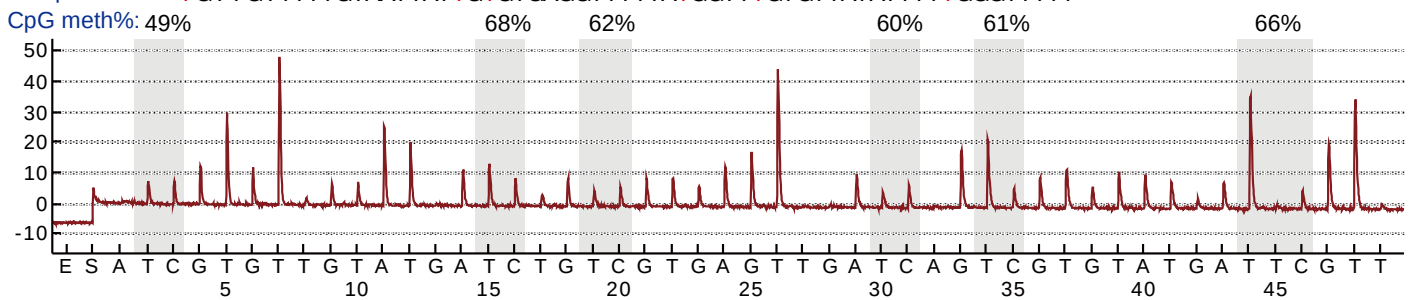
Pyrogram for RSX in 592E2 male fetal brain (primer 3)

Sequence: YGTTGTTTTGTAATTATYGYGTGAGGTTTTTAYGGTTYGTGTTATATTTTYGGGTTTTT



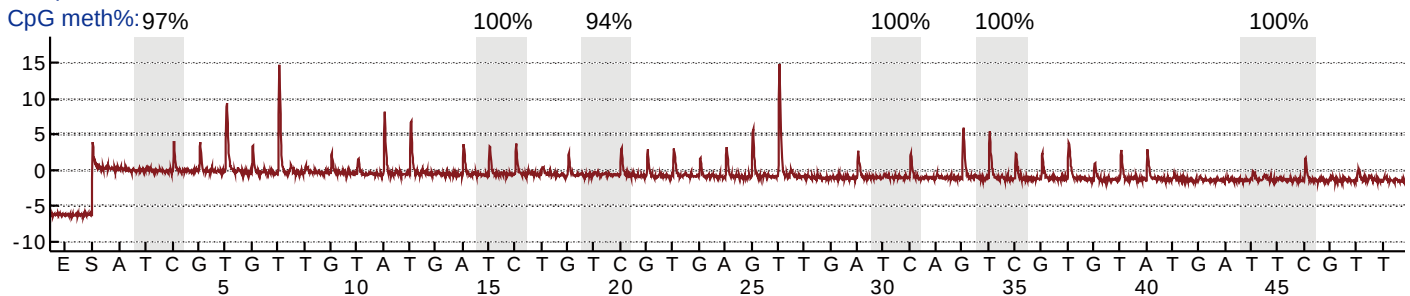
Pyrogram for RSX in 592E1 female EEM (primer 3)

Sequence: YGTTGTTTTGTAATTATYGYGTGAGGTTTTTAYGGTTYGTGTTATATTTTYGGGTTTTT

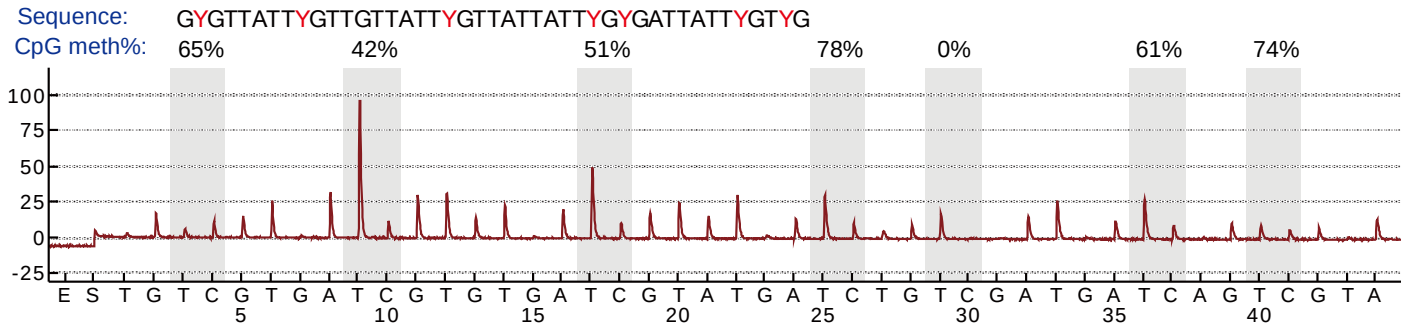


Pyrogram for RSX in 592E2 male EEM (primer 3)

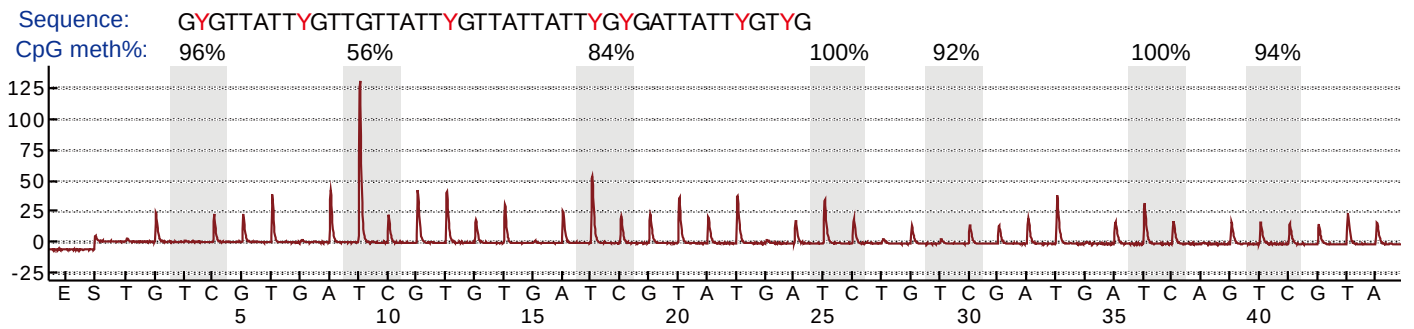
Sequence: YGTTGTTTTGTAATTATYGYGTGAGGTTTTTAYGGTTYGTGTTATATTTTYGGGTTTTT



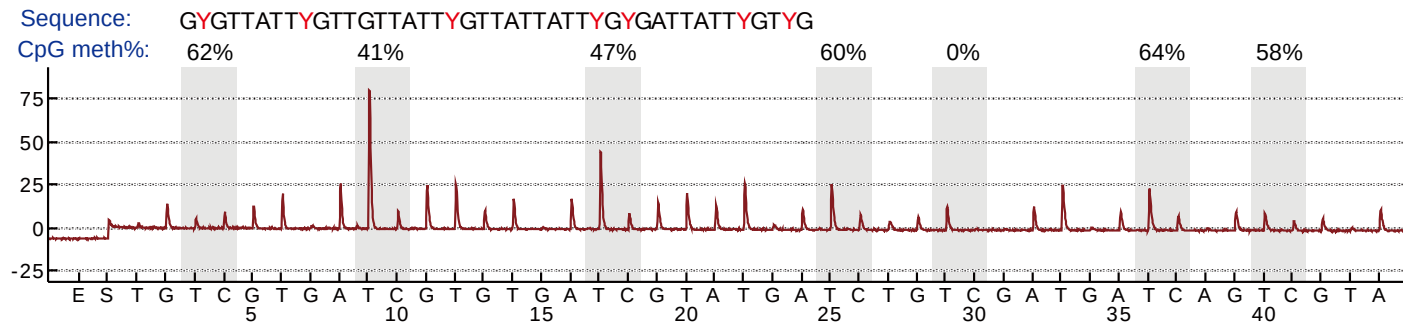
Pyrogram for RSX in 592E1 female fetal brain (primer 4)



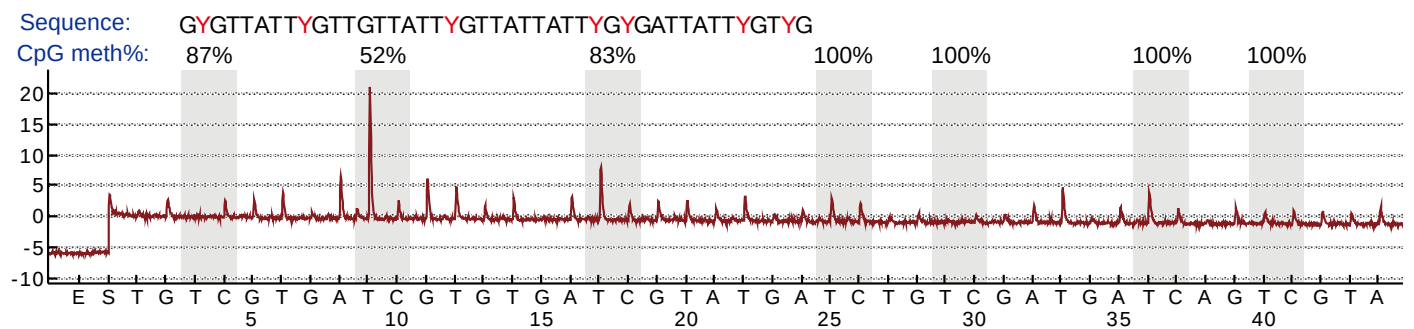
Pyrogram for RSX in 592E2 male fetal brain (primer 4)



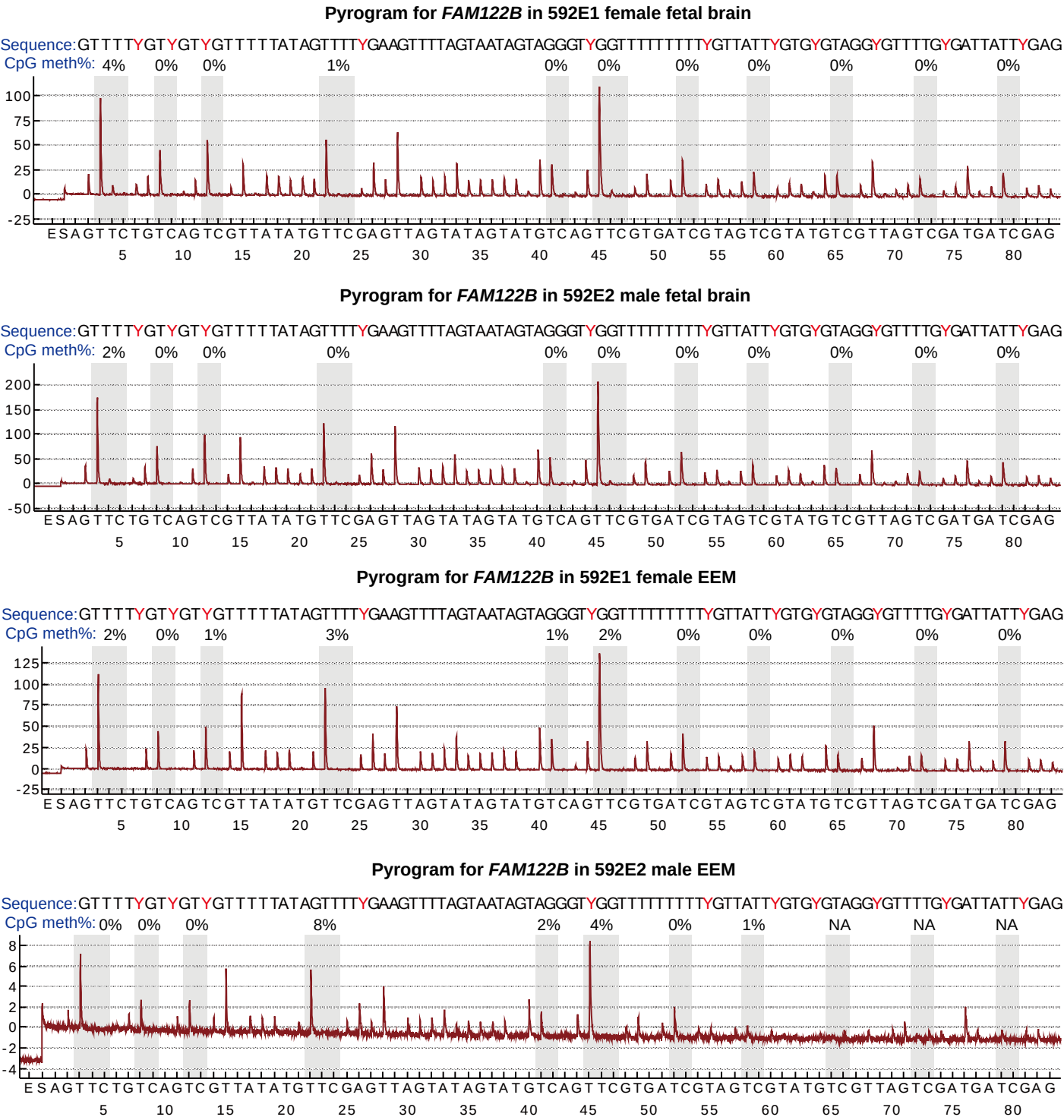
Pyrogram for RSX in 592E1 female EEM (primer 4)



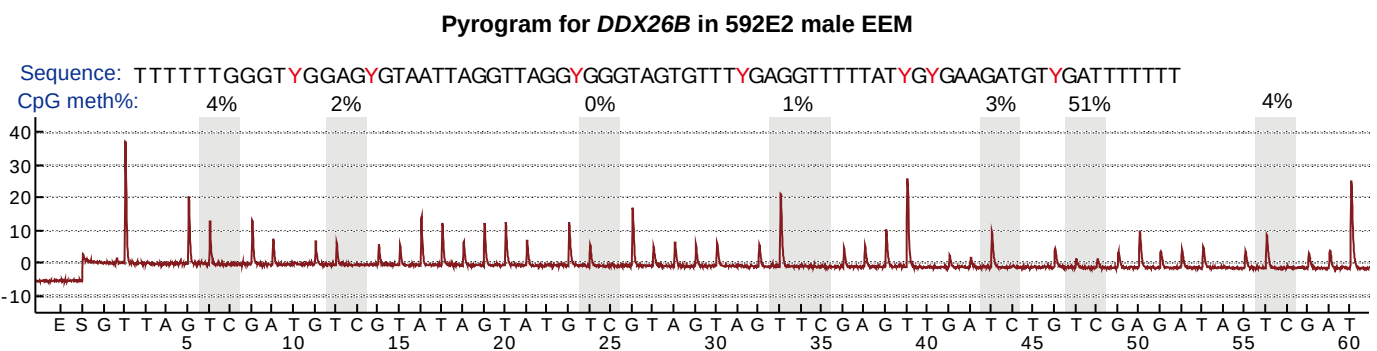
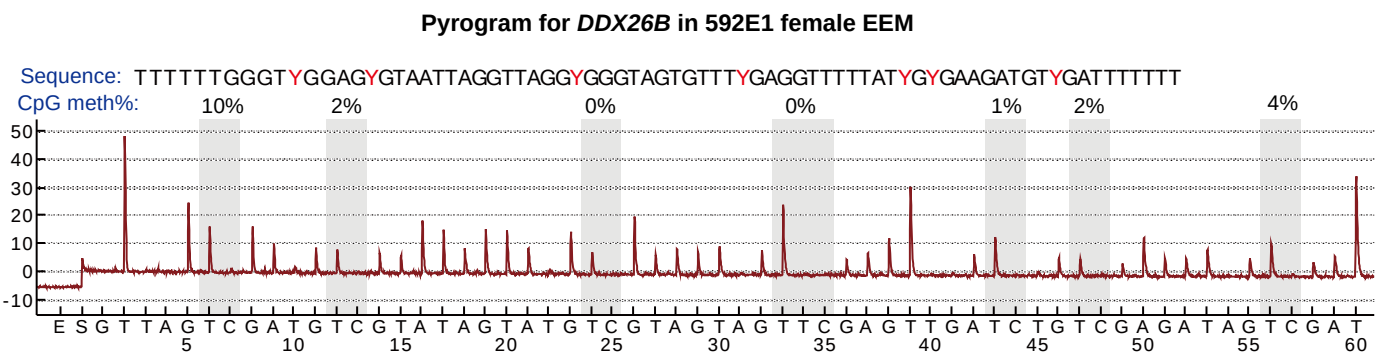
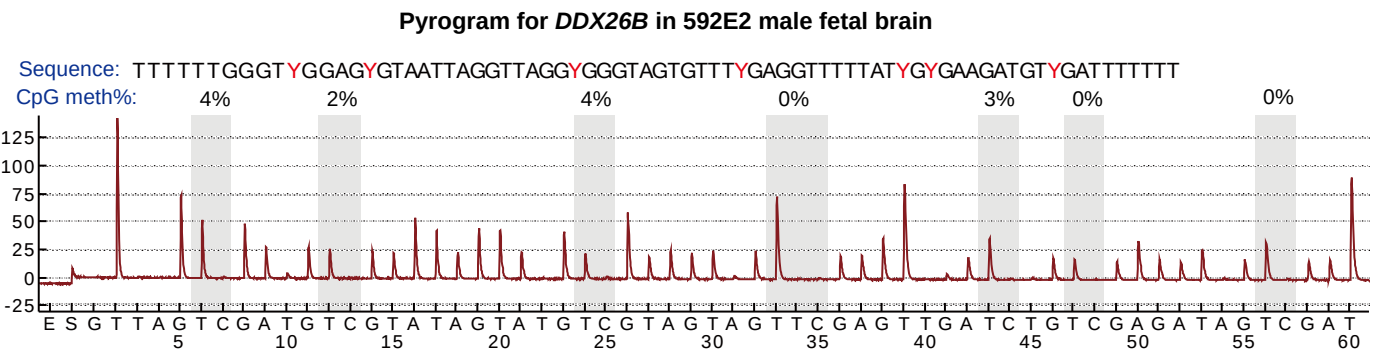
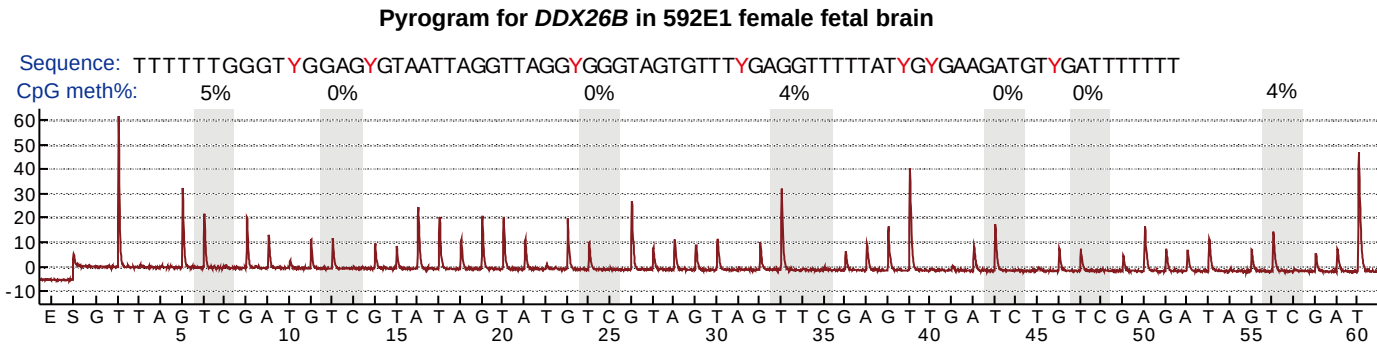
Pyrogram for RSX in 592E2 male EEM (primer 4)



(K). Pyrograms for PyroMark analysis of the methylation profile at *FAM122B* promoter CpG island. The methylation percentages for 8 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

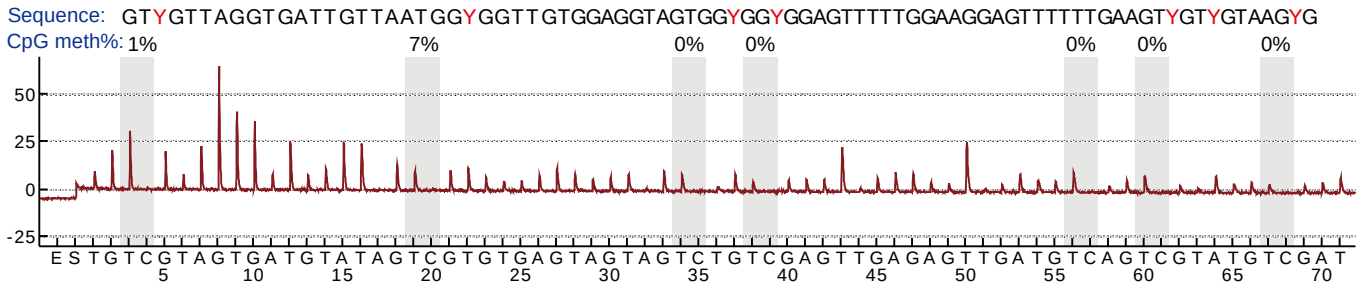


(L). Pyrograms for PyroMark analysis of the methylation profile at *DDX26B* promoter CpG island. The methylation percentages for 7 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

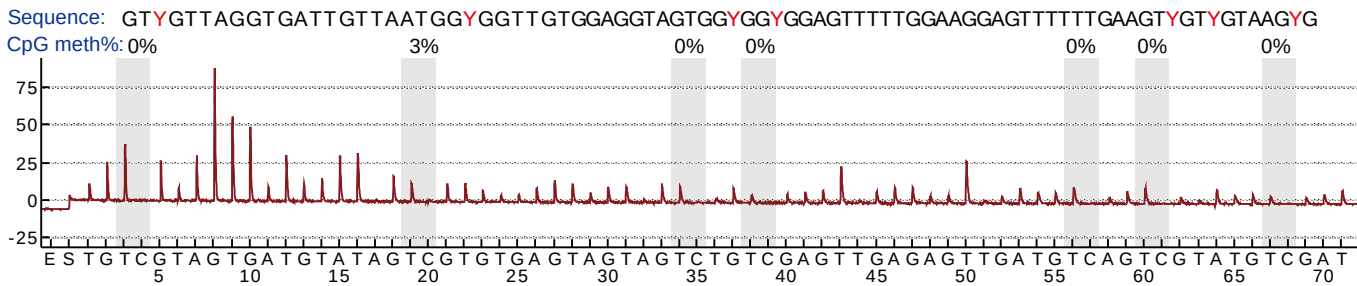


(M). Pyrograms for PyroMark analysis of the methylation profile at *MTMR1* promoter CpG island. The methylation percentages for 7 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

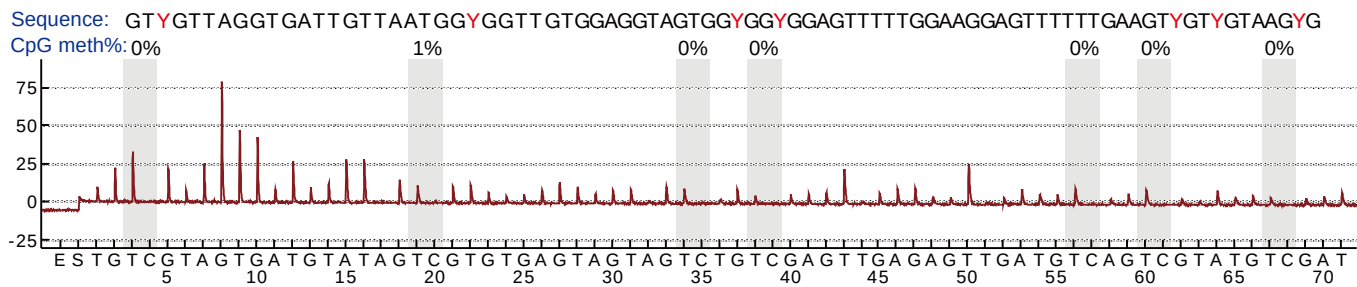
Pyrogram for *MTMR1* in 592E1 female fetal brain



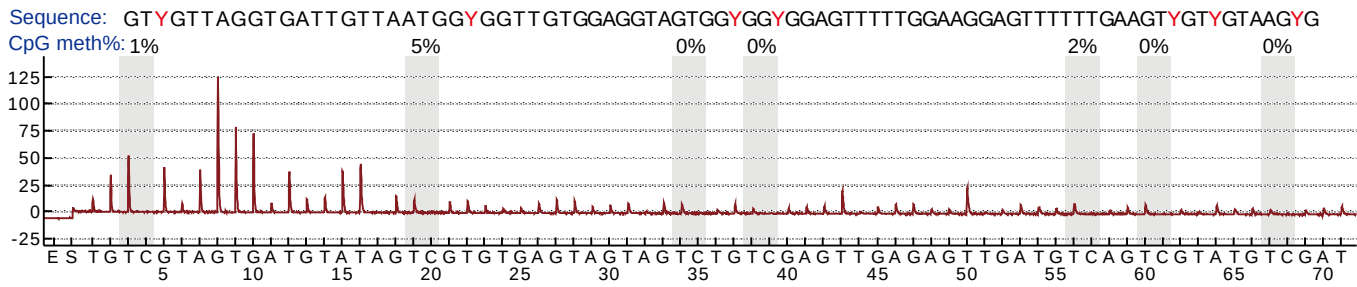
Pyrogram for *MTMR1* in 592E2 male fetal brain



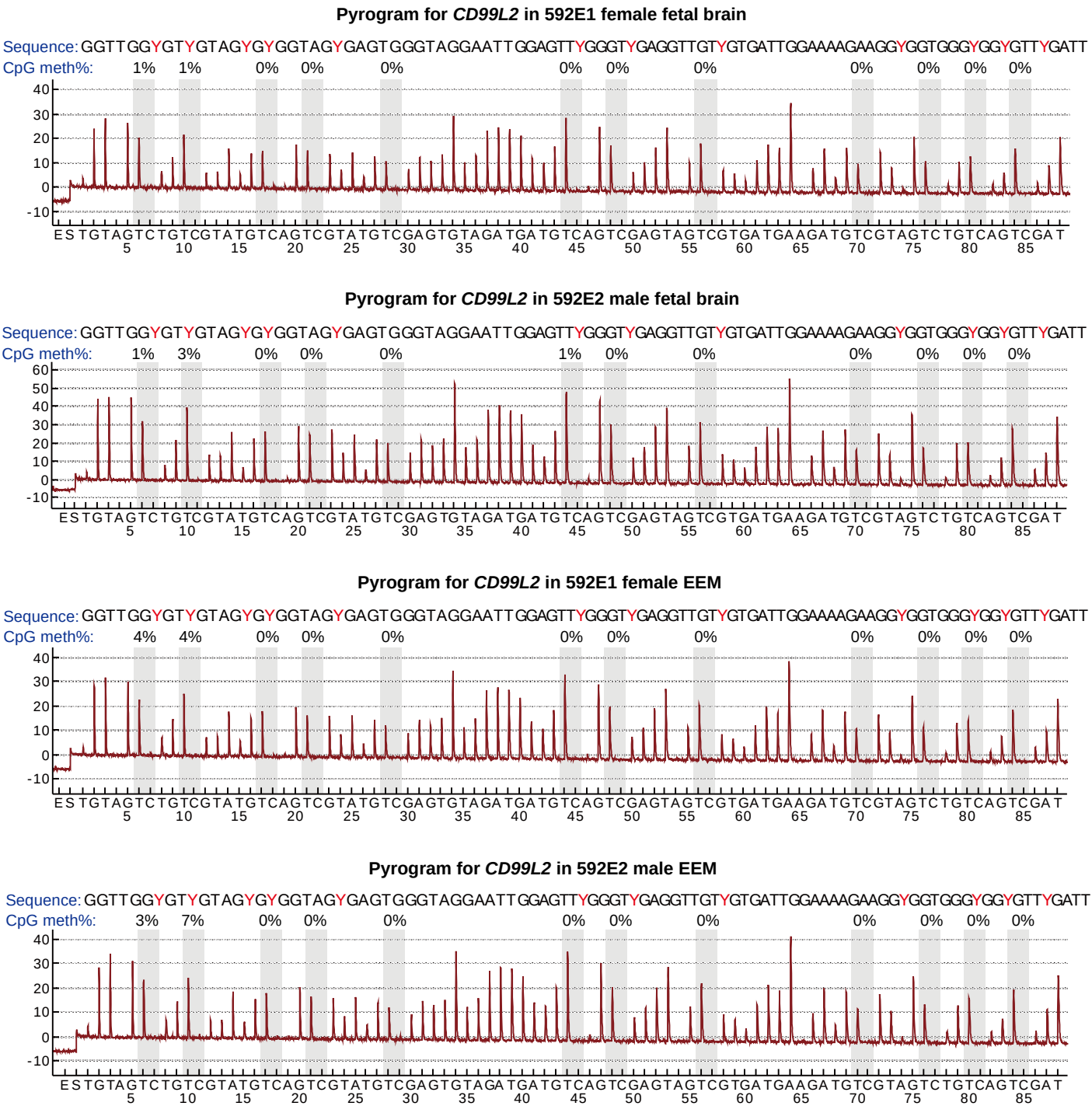
Pyrogram for *MTMR1* in 592E1 female EEM



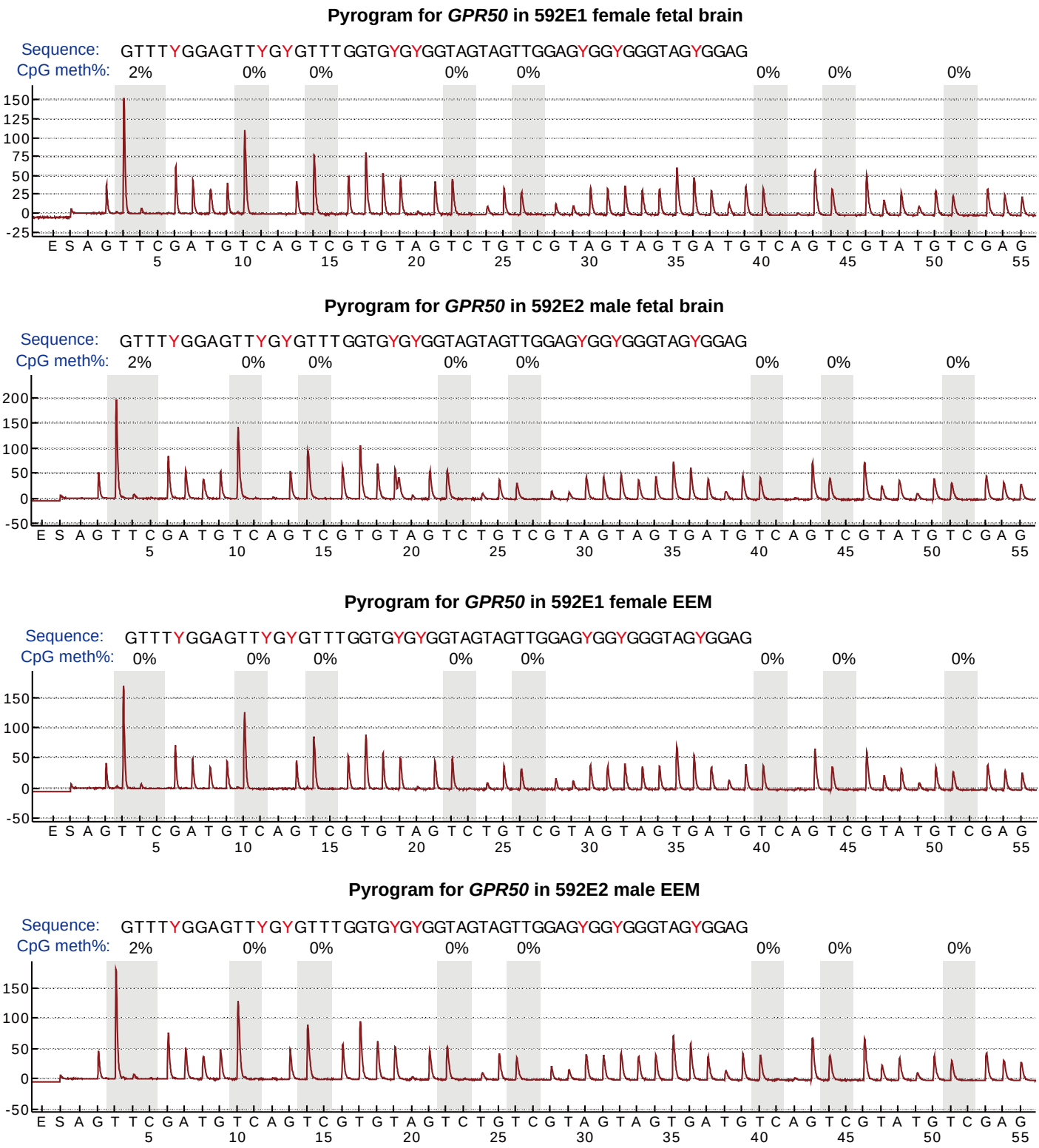
Pyrogram for *MTMR1* in 592E2 male EEM



(N). Pyrograms for PyroMark analysis of the methylation profile at *CD99L2* promoter CpG island. The methylation percentages for 12 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

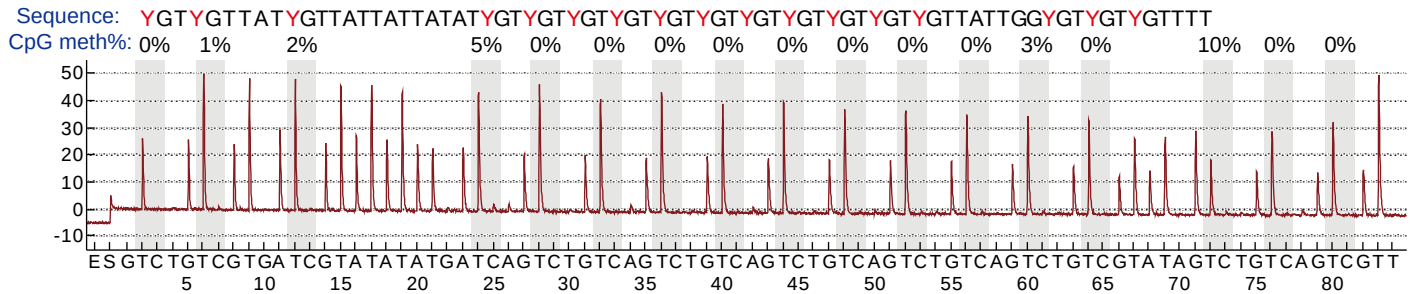


(O). Pyrograms for PyroMark analysis of the methylation profile at *GPR50* promoter CpG island. The methylation percentages for 8 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

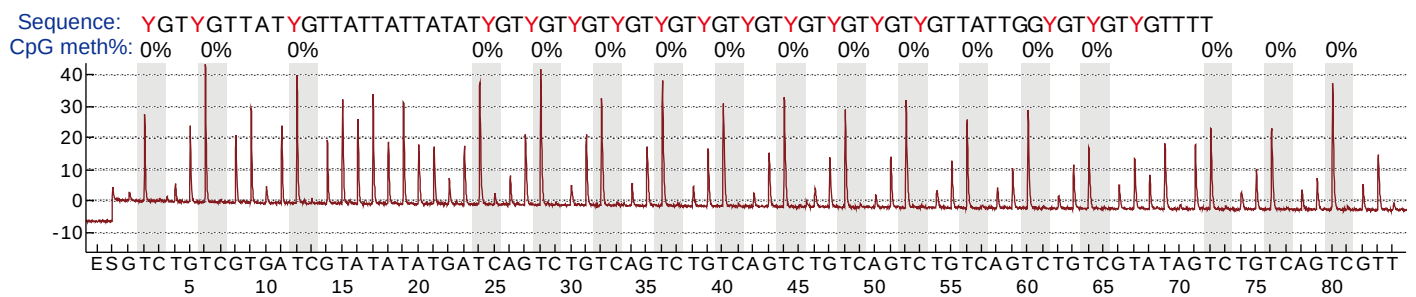


(P). Pyrograms for PyroMark analysis of the methylation profile at *ATP7A* promoter CpG island. The methylation percentages for 17 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

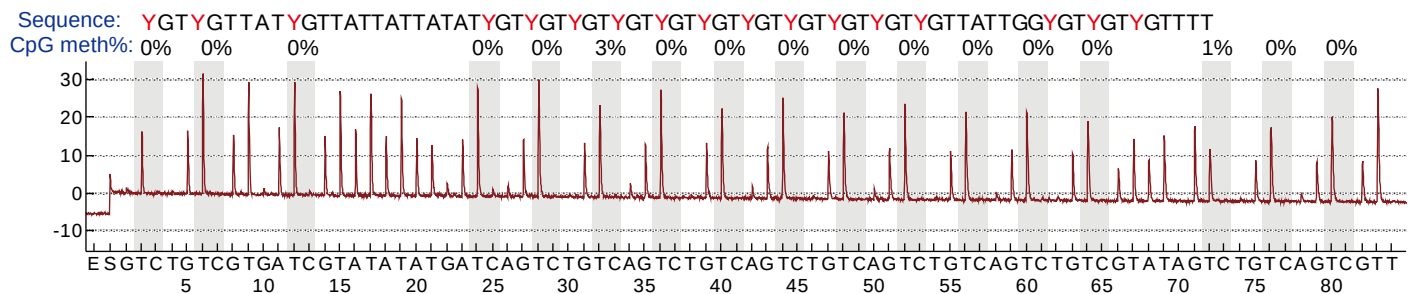
Pyrogram for *ATP7A* in 592E1 female fetal brain



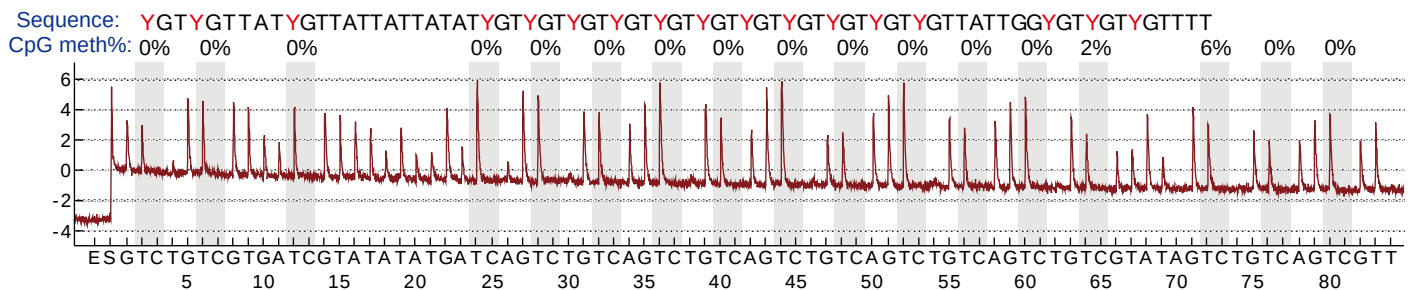
Pyrogram for *ATP7A* in 592E2 male fetal brain



Pyrogram for *ATP7A* in 592E1 female EEM

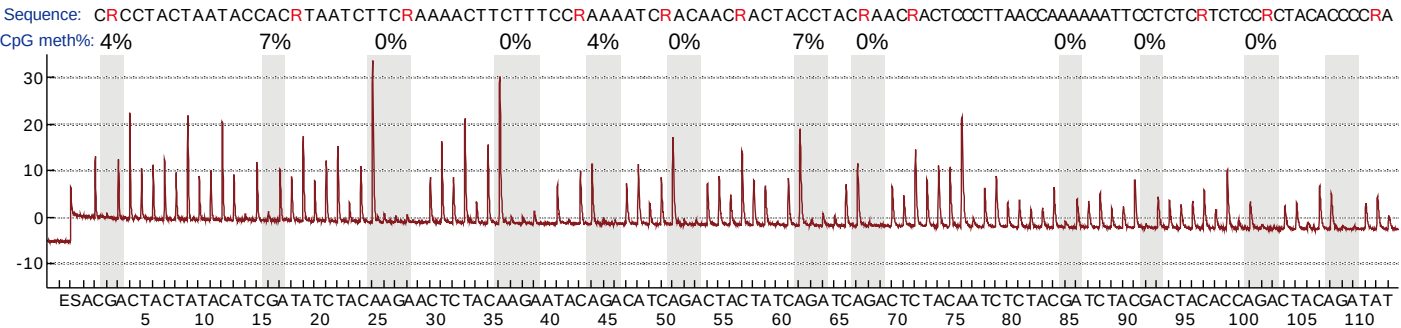


Pyrogram for *ATP7A* in 592E2 male EEM

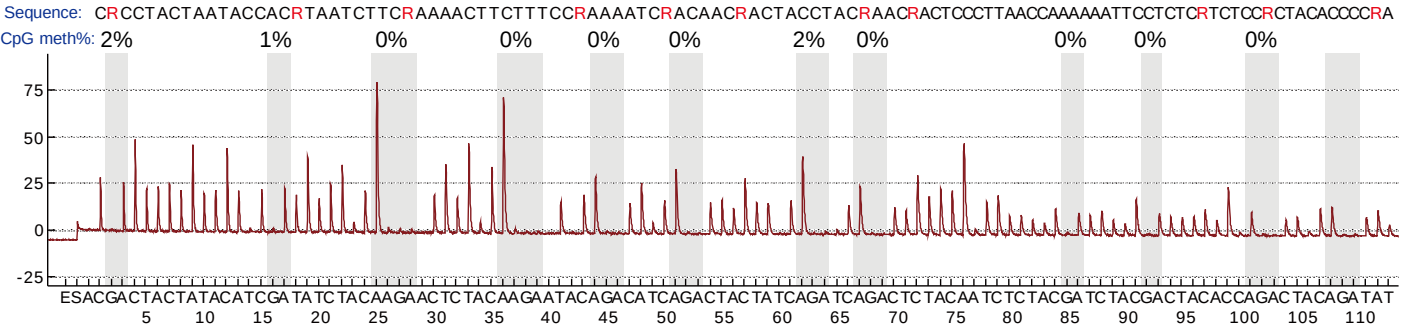


(Q). Pyrograms for PyroMark analysis of the methylation profile at *FNDC3C1* promoter CpG island. The methylation percentages for 11 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM). The PyroMark primers target the minus strand.

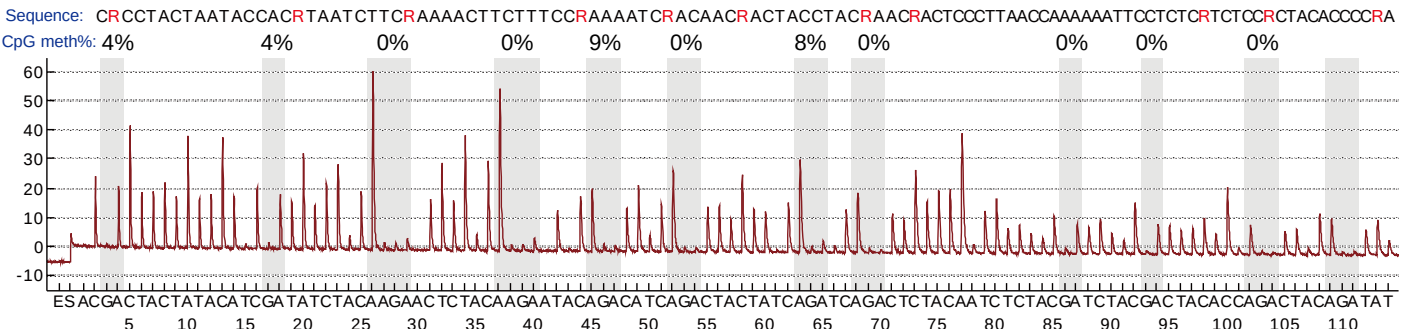
Pyrogram for *FNDC3C1* in 592E1 female fetal brain



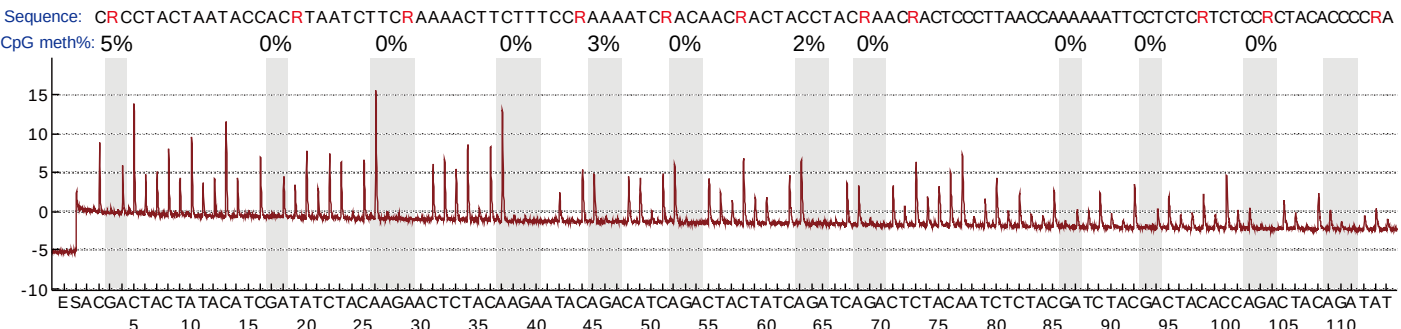
Pyrogram for *FNDC3C1* in 592E2 male fetal brain



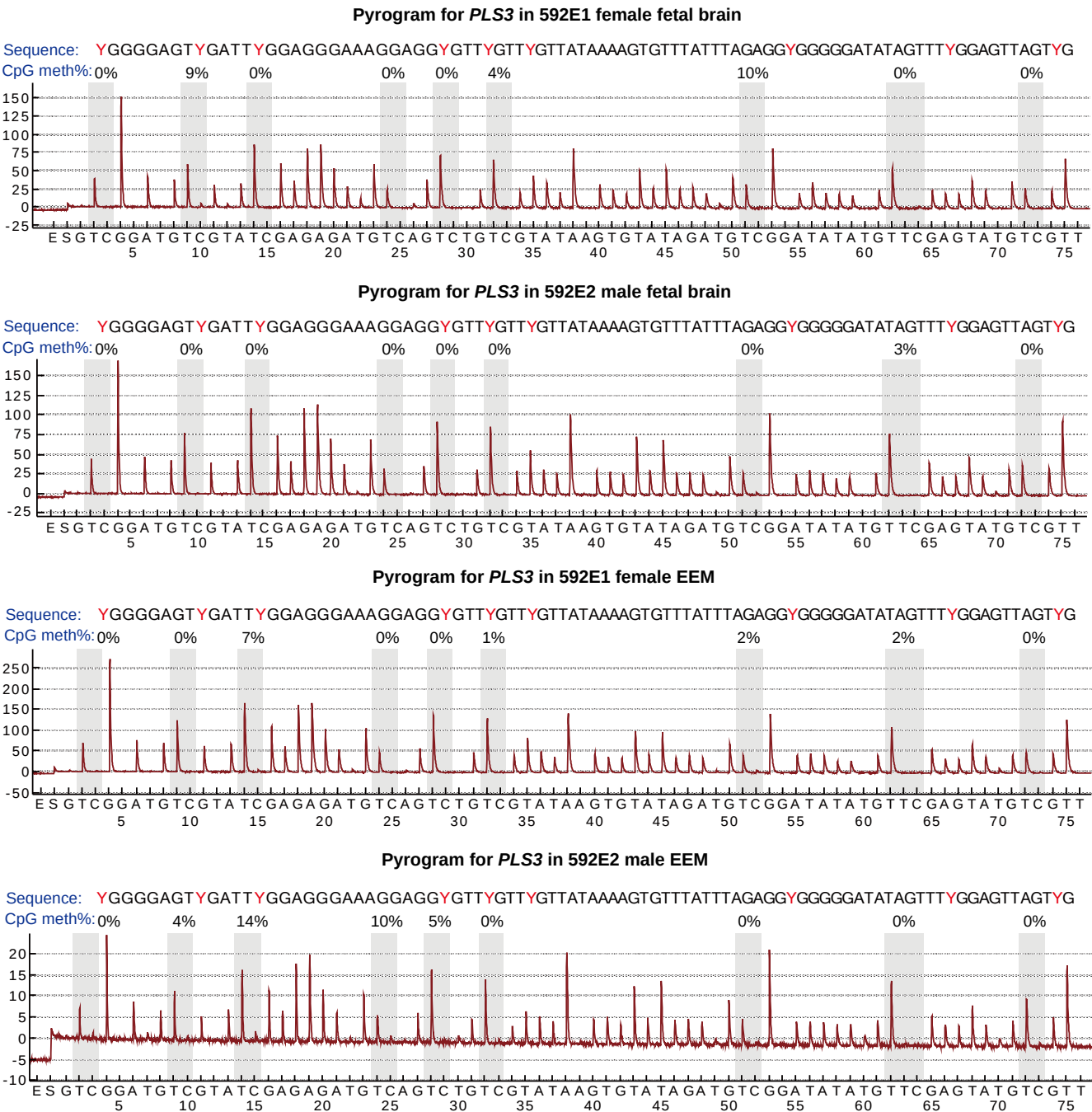
Pyrogram for *FNDC3C1* in 592E1 female EEM



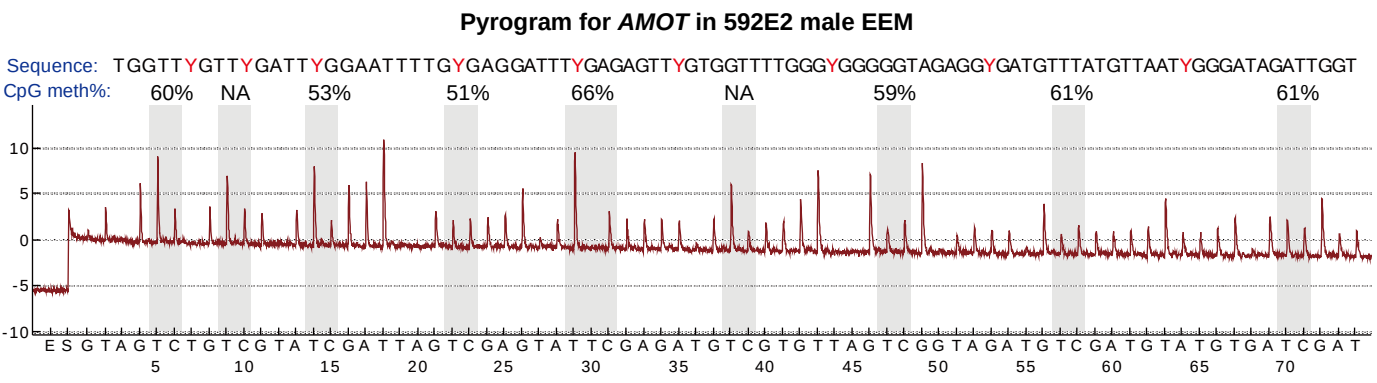
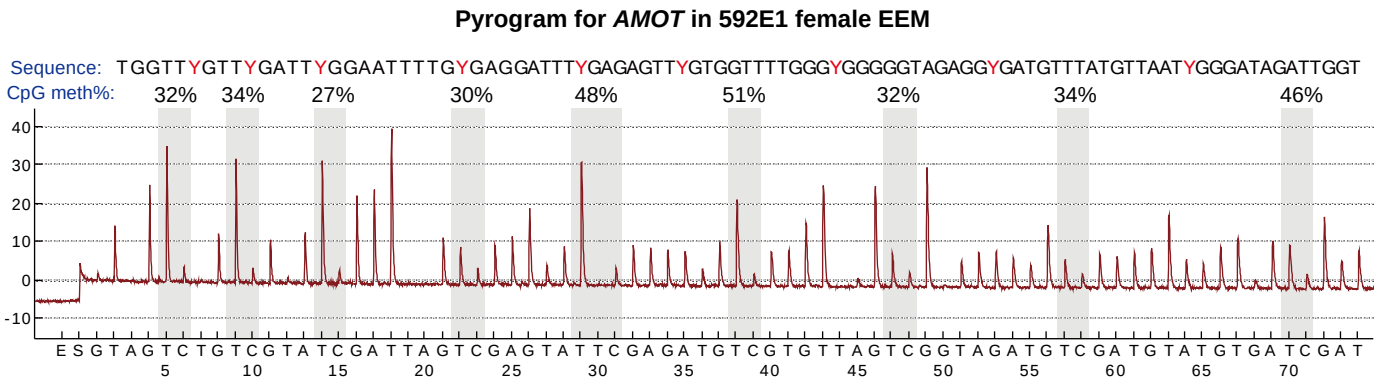
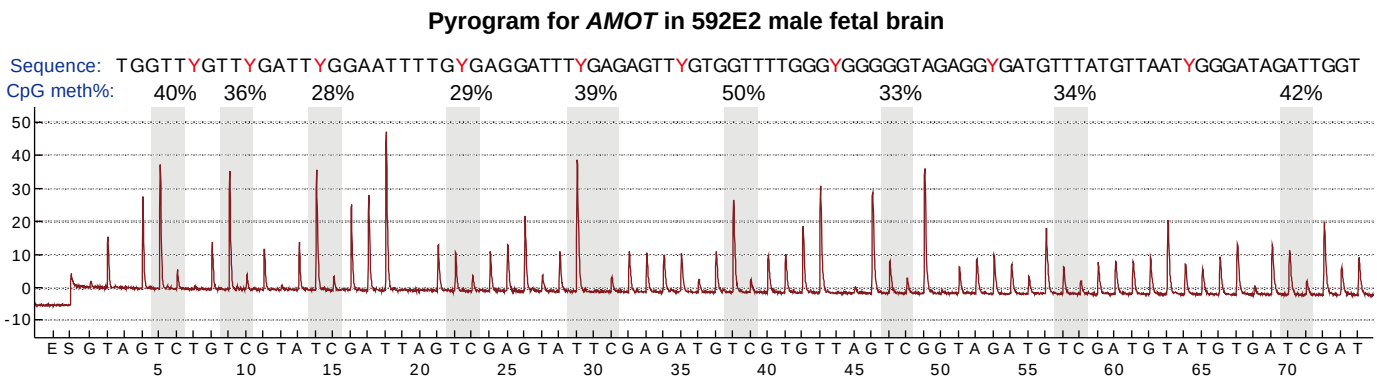
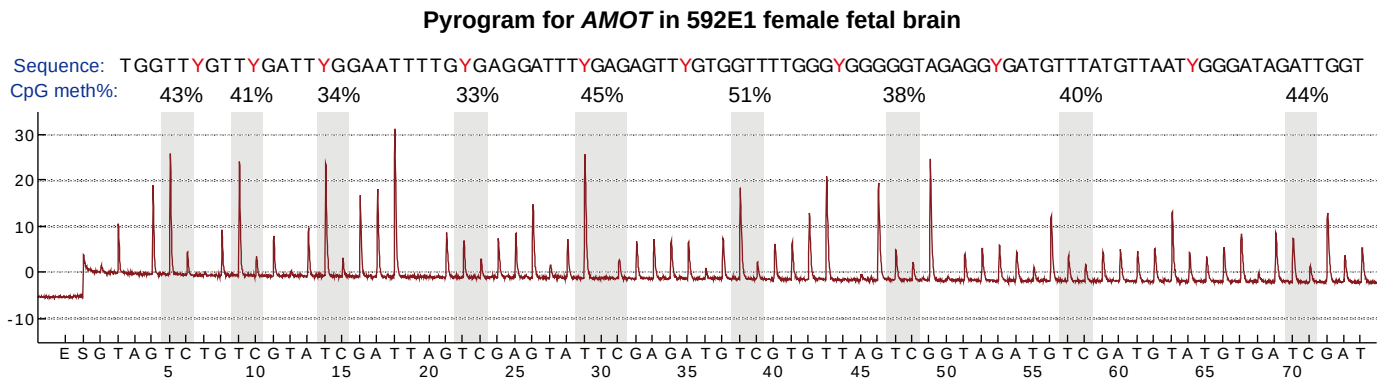
Pyrogram for *FNDC3C1* in 592E2 male EEM



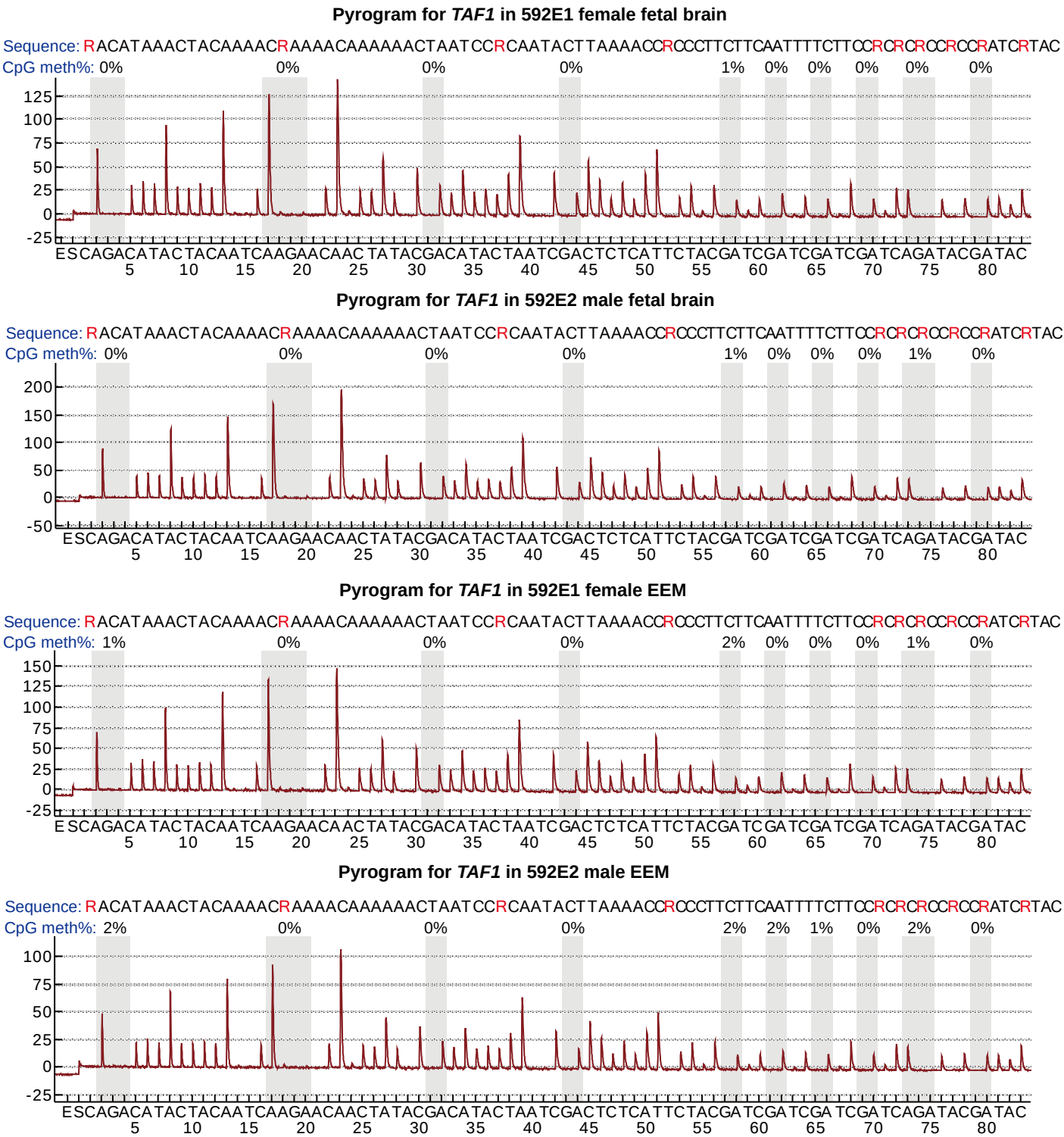
(R). Pyrograms for PyroMark analysis of the methylation profile at *PLS3* promoter CpG island. The methylation percentages for 9 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



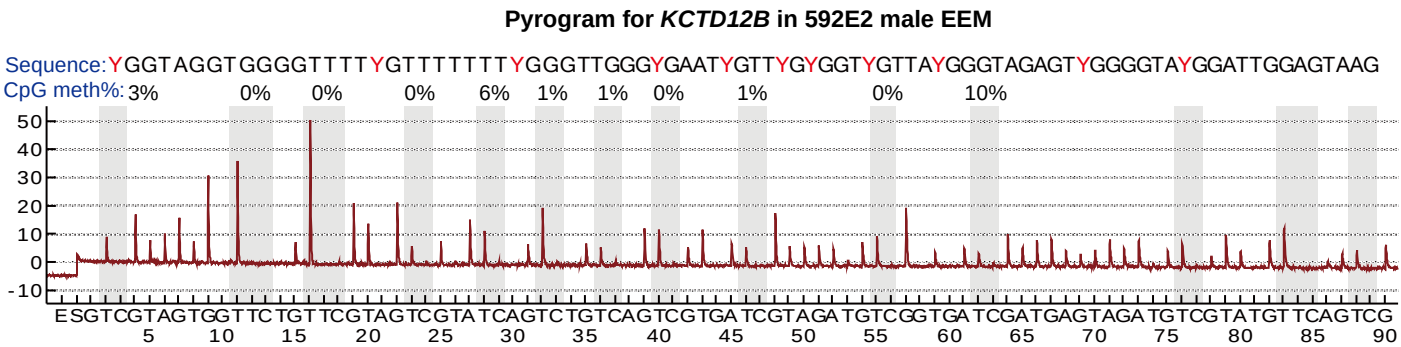
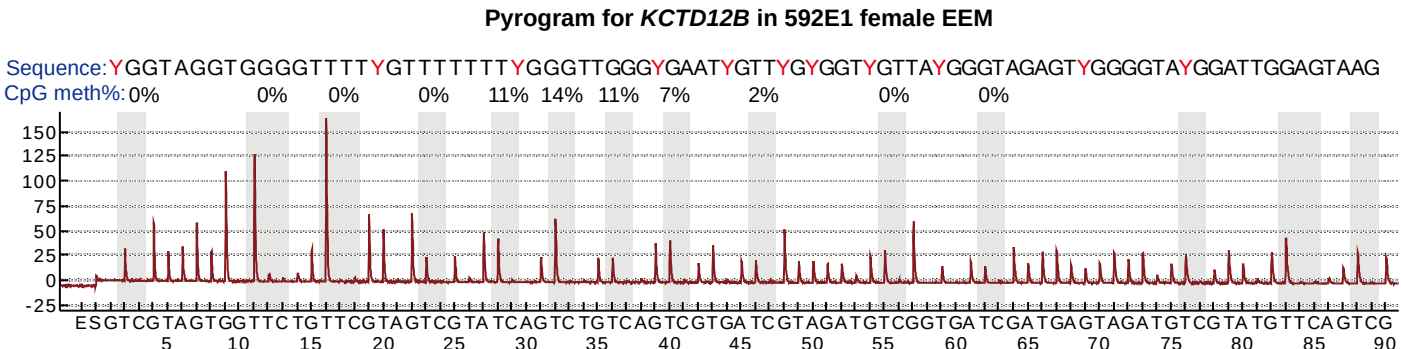
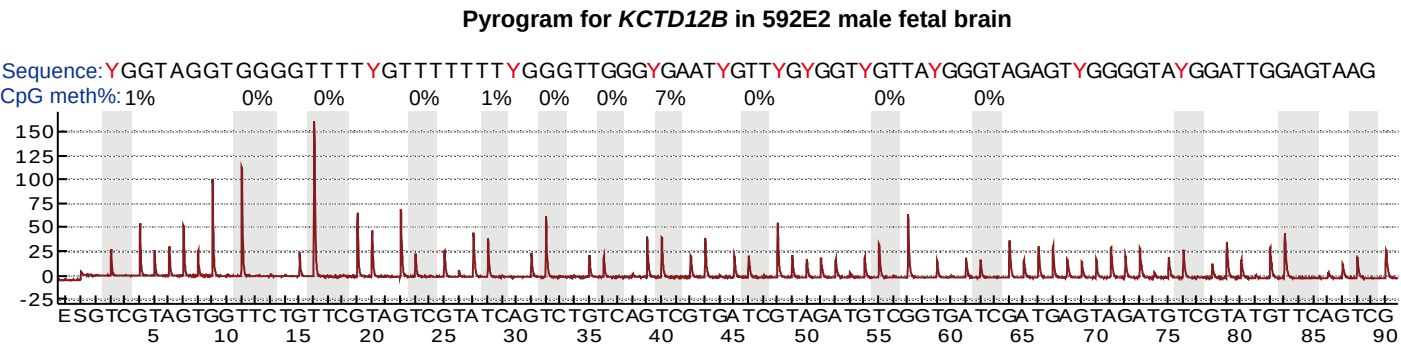
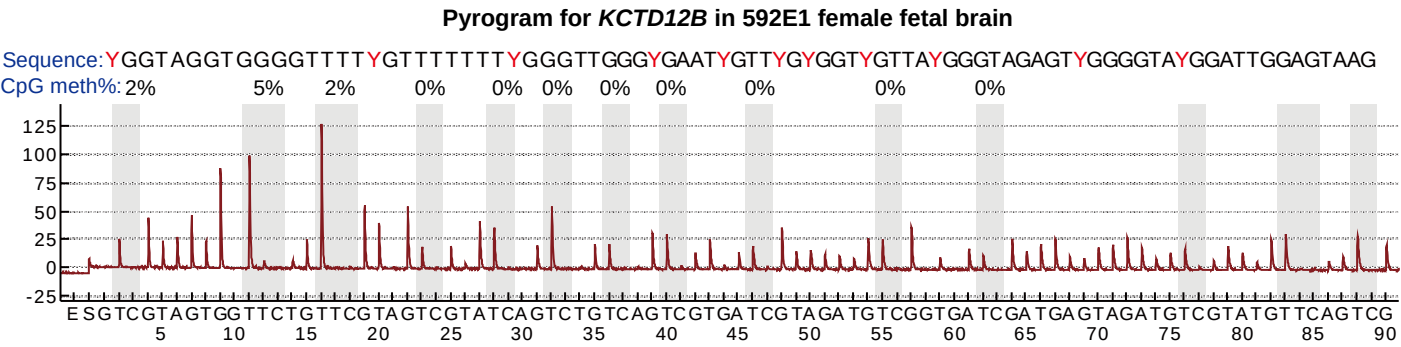
(S). Pyrograms for PyroMark analysis of the methylation profile at *AMOT* promoter CpG island. The methylation percentages for 9 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



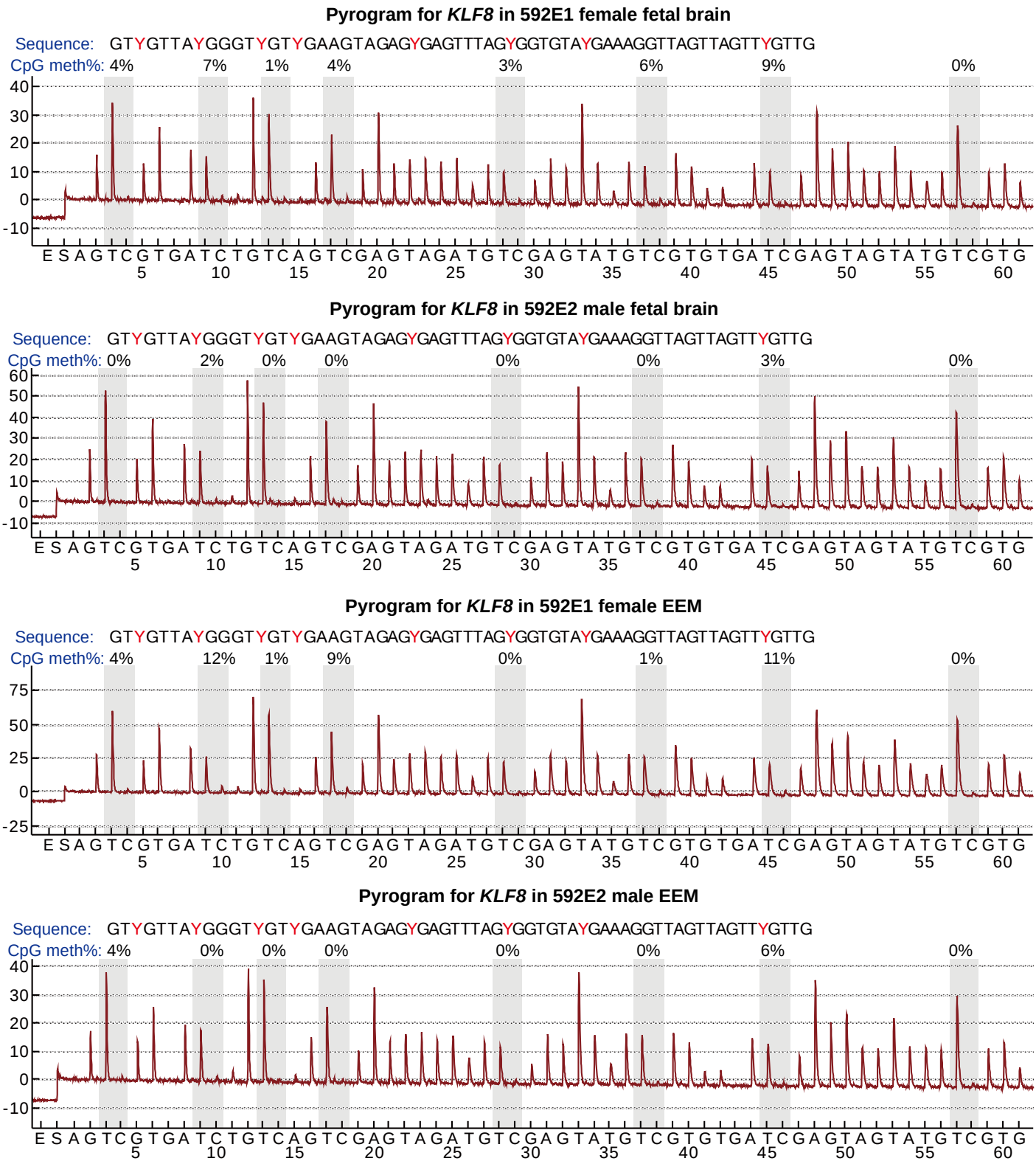
(T). Pyrograms for PyroMark analysis of the methylation profile at *TAF1* promoter CpG island. The methylation percentages for 10 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM). The PyroMark primers target the minus strand.



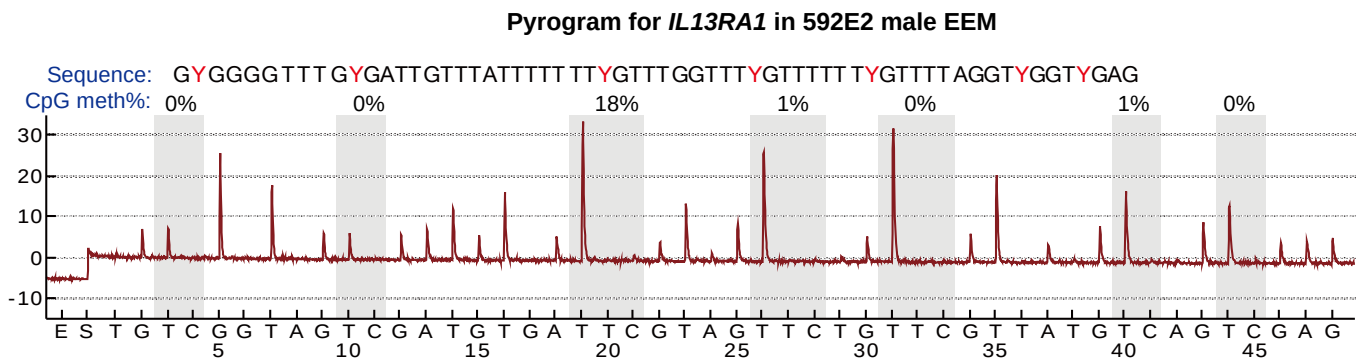
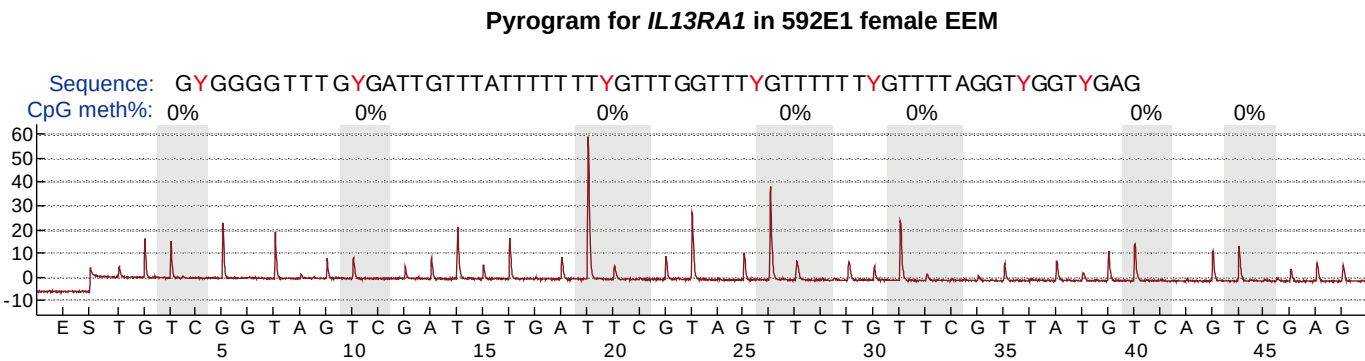
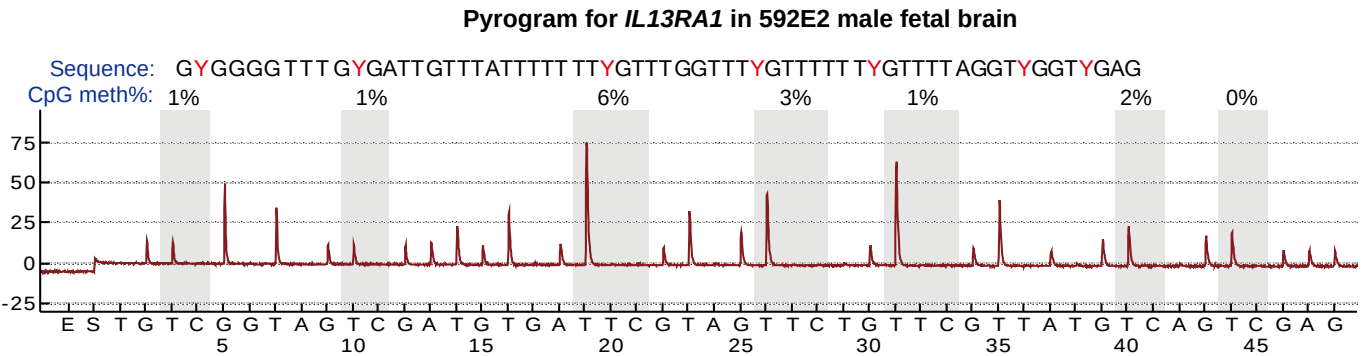
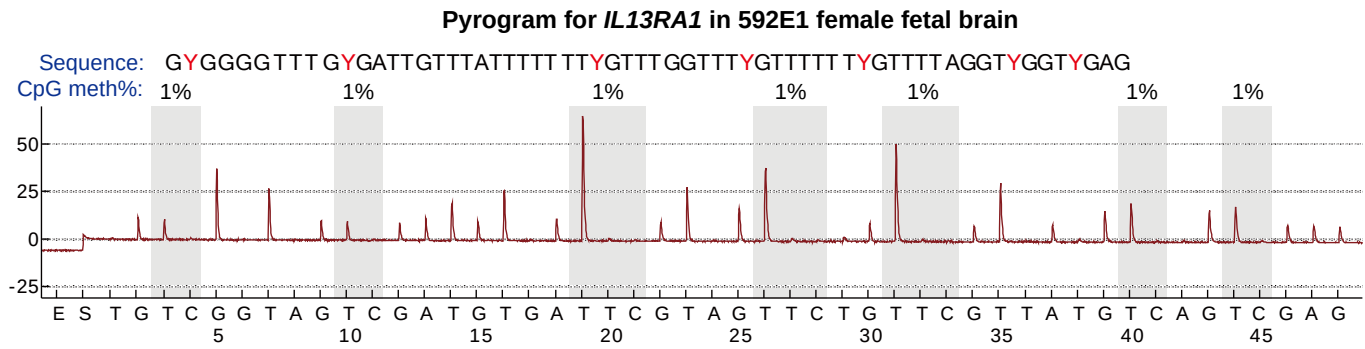
(U). Pyrograms for PyroMark analysis of the methylation profile at *KCTD12B* promoter CpG island. The methylation percentages for 11 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



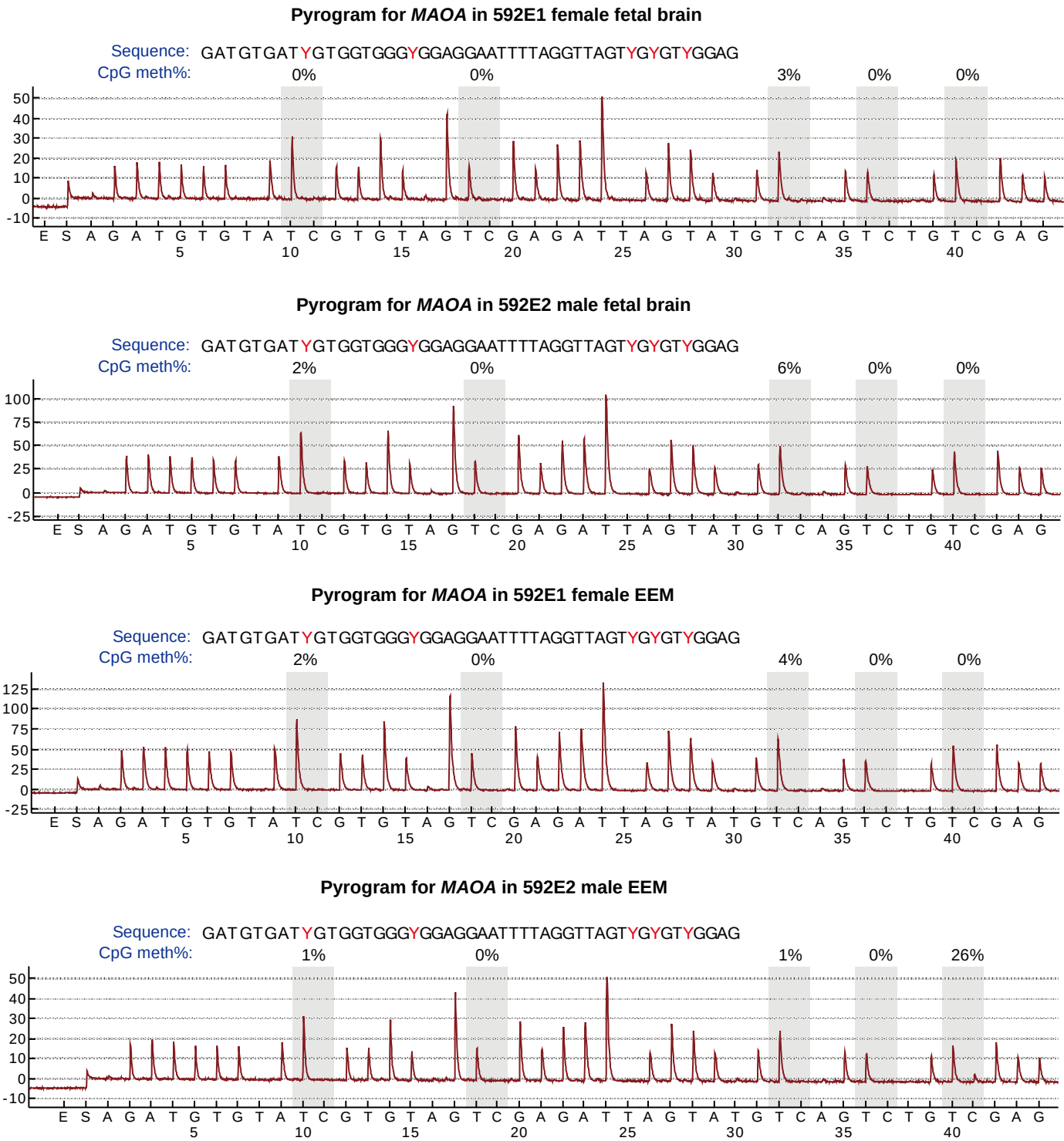
(V). Pyrograms for PyroMark analysis of the methylation profile at *KLF8* promoter CpG island. The methylation percentages for 8 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



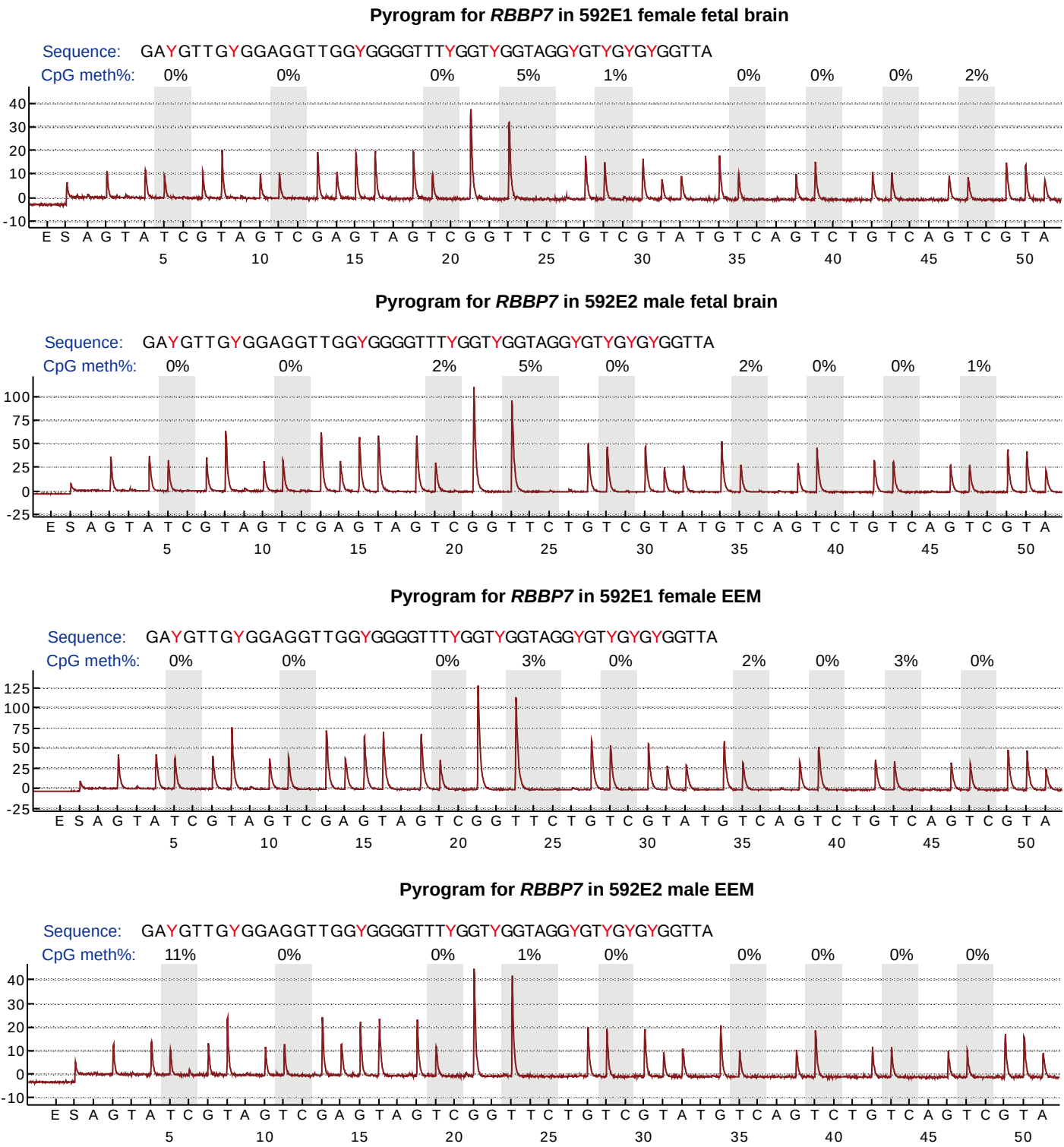
(W). Pyrograms for PyroMark analysis of the methylation profile at *IL13RA1* promoter CpG island. The methylation percentages for 7 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



(X). Pyrograms for PyroMark analysis of the methylation profile at *MAOA* promoter CpG island. The methylation percentages for 5 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



(Y). Pyrograms for PyroMark analysis of the methylation profile at *RBBP7* promoter CpG island. The methylation percentages for 9 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).



(Z). Pyrograms for PyroMark analysis of the methylation profile at *ACE2* promoter CpG island. The methylation percentages for 7 CpGs were quantified in female (592E1) and male (592E2) fetal brain and extra-embryonic membranes (EEM).

