

Supplementary Table S4. Postnatal MicroRNA Expression Profiles in Children Descending from Preterm Pregnancies with regard to Gestational Age at Delivery.

	Extremely preterm (n=19) vs NP (n= 92)	Very preterm (n= 33) vs NP (n=92)	Moderate to late preterm (n= 59) vs NP (n=92)
miR-1-3p	0.602±0.405 vs 0.048±0.072, p< 0.001 AUC 0.970, p< 0.001 , sen 84.21%, spe 98.91%, cut off >0.2300, 89.47% at 10.0% FPR	0.593±0.774 vs 0.048±0.072, p< 0.001 AUC 0.927, p< 0.001 , sen 93.94%, spe 78.26%, cut off >0.0634, 66.67% at 10.0% FPR	0.613±0.884 vs 0.048±0.072, p< 0.001 AUC 0.923, p< 0.001 , sen 86.44%, spe 82.61%, cut off >0.0733, 76.27% at 10.0% FPR
miR-16-5p	1.492±1.453 vs 0.827±0.604, p= 0.007 AUC 0.755, p< 0.001 , sen 94.74%, spe 50.00%, cut off >0.6757, 26.32% at 10.0% FPR	1.737±1.581 vs 0.827±0.604, p< 0.001 AUC 0.819, p< 0.001 , sen 84.85%, spe 72.83%, cut off >0.9370, 36.36% at 10.0% FPR	1.619±1.234 vs 0.827±0.604, p< 0.001 AUC 0.767, p< 0.001 , sen 76.27%, spe 67.39%, cut off >0.8467, 45.76% at 10.0% FPR
miR-17-5p	1.563±0.775 vs 0.972±0.766, p= 0.006 AUC 0.753, p< 0.001 , sen 68.42%, spe 78.26%, cut off >1.2101, 42.11% at 10.0% FPR	1.582±1.143 vs 0.972±0.766, p= 0.007 AUC 0.685, p= 0.001 , sen 60.61%, spe 72.83%, cut off >1.0995, 36.36% at 10.0% FPR	1.624±1.102 vs 0.972±0.766, p< 0.001 AUC 0.719, p< 0.001 , sen 59.32%, spe 81.52%, cut off >1.2543, 40.68% at 10.0% FPR
miR-20a-5p	2.190±1.287 vs 0.800±0.630, p< 0.001 AUC 0.863, p< 0.001 , sen 78.95%, spe 80.43%, cut off >1.0966, 63.16% at 10.0% FPR	2.413±2.134 vs 0.800±0.630, p< 0.001 AUC 0.811, p< 0.001 , sen 75.76%, spe 80.43%, cut off >1.0966, 48.48% at 10.0% FPR	2.697±2.440 vs 0.800±0.630, p< 0.001 AUC 0.803, p< 0.001 , sen 57.63%, spe 93.48%, cut off >1.6262, 59.32% at 10.0% FPR
miR-20b-5p	1.845±1.171 vs 1.126±1.050, p= 0.008 AUC 0.755, p< 0.001 , sen 84.21%, spe 66.30%, cut off >1.1001, 36.84% at 10.0% FPR	2.328±1.614 vs 1.126±1.050, p< 0.001 AUC 0.796, p< 0.001 , sen 84.85%, spe 70.65%, cut off >1.1681, 51.52% at 10.0% FPR	2.203±1.763 vs 1.126±1.050, p< 0.001 AUC 0.757, p< 0.001 , sen 67.80%, spe 77.17%, cut off >1.4280, 47.46% at 10.0% FPR
miR-21-5p	0.471±0.827 vs 0.189±0.167, p= 0.027	0.377±0.263 vs 0.189±0.167, p< 0.001	0.459±0.497 vs 0.189±0.167, p< 0.001

	AUC 0.725, p< 0.001 , sen 78.95%, spe 61.96%, cut off >0.1876, 21.05% at 10.0% FPR	AUC 0.766, p< 0.001 , sen 78.79%, spe 63.04%, cut off >0.1990, 33.33% at 10.0% FPR	AUC 0.743, p< 0.001 , sen 59.32%, spe 78.26%, cut off >0.2544, 42.37% at 10.0% FPR
miR-23a-3p	0.252±0.276 vs 0.121±0.123, p= 0.163 AUC 0.658, p= 0.031 , sen 52.63%, spe 75.00%, cut off >0.1573, 31.58% at 10.0% FPR	0.208±0.332 vs 0.121±0.123, p= 0.536 -	0.244±0.332 vs 0.121±0.123, p= 0.003 AUC 0.665, p< 0.001 , sen 57.63%, spe 71.74%, cut off >0.1387, 28.81% at 10.0% FPR
miR-24-3p	0.255±0.221 vs 0.187±0.129, p= 0.806 -	0.238±0.144 vs 0.187±0.129, p= 0.353 -	0.270±0.193 vs 0.187±0.129, p= 0.010 AUC 0.650, p= 0.001 , sen 42.37%, spe 83.70%, cut off >0.2806, 22.03% at 10.0% FPR
miR-26a-5p	0.664±0.654 vs 0.358±0.322, p= 0.013 AUC 0.742, p< 0.001 , sen 94.74%, spe 47.83%, cut off >0.2564, 31.58% at 10.0% FPR	0.661±0.375 vs 0.358±0.322, p< 0.001 AUC 0.785, p< 0.001 , sen 66.67%, spe 81.52%, cut off >0.5119, 36.36% at 10.0% FPR	0.729±0.670 vs 0.358±0.322, p< 0.001 AUC 0.754, p< 0.001 , sen 50.85%, spe 88.04%, cut off >0.6078, 45.76% at 10.0% FPR
miR-29a-3p	0.457±0.577 vs 0.183±0.194, p= 0.001 AUC 0.793, p< 0.001 , sen 84.21%, spe 71.74%, cut off >0.1840, 31.58% at 10.0% FPR	0.455±0.321 vs 0.183±0.194, p< 0.001 AUC 0.833, p< 0.001 , sen 81.82%, spe 75.00%, cut off >0.2279, 42.42% at 10.0% FPR	0.496±0.700 vs 0.183±0.194, p< 0.001 AUC 0.803, p< 0.001 , sen 89.83%, spe 63.04%, cut off >0.1471, 37.29% at 10.0% FPR
miR-92a-3p	1.728±1.523 vs 1.666±1.059, p= 1.000 -	2.043±1.472 vs 1.666±1.059, p= 1.000 -	1.740±1.341 vs 1.666±1.059, p= 1.000 -
miR-100-5p	0.003±0.003 vs 0.001±0.001, p= 0.032 AUC 0.711, p< 0.001 , sen 84.21%, spe 55.43%,	0.003±0.003 vs 0.001±0.001, p< 0.001 AUC 0.788, p< 0.001 , sen 81.82%, spe 71.74%,	0.003±0.003 vs 0.001±0.001, p< 0.001 AUC 0.749, p< 0.001 , sen 55.93%, spe 86.96%,

	cut off >0.0012, 26.32% at 10.0% FPR	cut off >0.0015, 42.42% at 10.0% FPR	cut off >0.0025, 42.37% at 10.0% FPR
miR-103a-3p	2.249±2.144 vs 0.837±0.826, p< 0.001 AUC 0.811, p< 0.001 , sen 68.42%, spe 79.35%, cut off >1.2544, 47.37% at 10.0% FPR	2.070±1.496 vs 0.837±0.826, p< 0.001 AUC 0.805, p< 0.001 , sen 78.79%, spe 73.91%, cut off >0.9662, 42.42% at 10.0% FPR	2.229±2.124 vs 0.837±0.826, p< 0.001 AUC 0.800, p< 0.001 , sen 74.58%, spe 75.00%, cut off >1.0081, 47.46% at 10.0% FPR
miR-125b-5p	0.006±0.005 vs 0.003±0.002, p= 0.017 AUC 0.718, p= 0.002 , sen 63.16%, spe 77.17%, cut off >0.0034, 31.58% at 10.0% FPR	0.007±0.008 vs 0.003±0.002, p< 0.001 AUC 0.749, p< 0.001 , sen 72.73%, spe 77.17%, cut off >0.0034, 33.33% at 10.0% FPR	0.007±0.008 vs 0.003±0.002, p< 0.001 AUC 0.745, p< 0.001 , sen 64.41%, spe 78.26%, cut off >0.0035, 30.51% at 10.0% FPR
miR-126-3p	0.296±0.186 vs 0.141±0.128, p< 0.001 AUC 0.813, p< 0.001 , sen 94.74%, spe 55.43%, cut off >0.1151, 42.11% at 10.0% FPR	0.361±0.266 vs 0.141±0.128, p< 0.001 AUC 0.831, p< 0.001 , sen 87.88%, spe 69.57%, cut off >0.1503, 39.39% at 10.0% FPR	0.390±0.406 vs 0.141±0.128, p< 0.001 AUC 0.806, p< 0.001 , sen 84.75%, spe 63.04%, cut off >0.1265, 50.85% at 10.0% FPR
miR-130b-3p	0.757±0.650 vs 0.431±0.487, p= 0.020 AUC 0.714, p< 0.001 , sen 84.21%, spe 53.26%, cut off >0.2890, 15.79% at 10.0% FPR	0.680±0.425 vs 0.431±0.487, p< 0.001 AUC 0.728, p< 0.001 , sen 66.67%, spe 79.35%, cut off >0.5528, 18.18% at 10.0% FPR	0.766±0.639 vs 0.431±0.487, p< 0.001 AUC 0.742, p< 0.001 , sen 91.53%, spe 51.09%, cut off >0.2514, 16.95% at 10.0% FPR
miR-133a-3p	0.140±0.111 vs 0.054±0.063, p< 0.001 AUC 0.824, p< 0.001 , sen 78.95%, spe 75.00%, cut off >0.0678, 42.11% at 10.0% FPR	0.151±0.133 vs 0.054±0.063, p< 0.001 AUC 0.783, p< 0.001 , sen 96.97%, spe 51.09%, cut off >0.0270, 33.33% at 10.0% FPR	0.152±0.180 vs 0.054±0.063, p< 0.001 AUC 0.724, p< 0.001 , sen 83.05%, spe 52.17%, cut off >0.0280, 30.51% at 10.0% FPR
miR-143-3p	0.068±0.114 vs 0.014±0.014, p< 0.001 AUC 0.863, p< 0.001 , sen 100.00%, spe 59.78%,	0.036±0.025 vs 0.014±0.014, p< 0.001 AUC 0.839, p< 0.001 , sen 93.94%, spe 63.04%,	0.049±0.053 vs 0.014±0.014, p< 0.001 AUC 0.811, p< 0.001 , sen 67.80%, spe 83.70%,

	cut off >0.0114, 52.63% at 10.0% FPR	cut off >0.0122, 42.42% at 10.0% FPR	cut off >0.0233, 49.15% at 10.0% FPR
miR-145-5p	0.150±0.198 vs 0.063±0.039, p= 0.193	0.106±0.069 vs 0.063±0.039, p= 0.014	0.118±0.113 vs 0.063±0.039, p= 0.011
	-	AUC 0.687, p< 0.001 , sen 75.76%, spe 53.26%, cut off >0.0601, 33.33% at 10.0% FPR	AUC 0.648, p= 0.002 , sen 50.85%, spe 76.09%, cut off >0.0826, 33.90% at 10.0% FPR
miR-146a-5p	1.766±1.555 vs 1.022±1.054, p= 0.016	1.922±1.291 vs 1.022±1.054, p< 0.001	2.080±1.810 vs 1.022±1.054, p< 0.001
	AUC 0.742, p< 0.001 , sen 84.21%, spe 64.13%, cut off >0.9569, 15.79% at 10.0% FPR	AUC 0.761, p< 0.001 , sen 87.88%, spe 56.52%, cut off >0.7917, 42.42% at 10.0% FPR	AUC 0.761, p< 0.001 , sen 66.10%, spe 77.17%, cut off >1.3766, 38.98% at 10.0% FPR
miR-155-5p	1.980±1.225 vs 1.779±1.590, p= 1.000	1.835±1.545 vs 1.779±1.590, p= 1.000	1.877±1.637 vs 1.779±1.590, p= 1.000
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miR-181a-5p	0.489±0.777 vs 0.216±0.312, p= 0.003	0.427±0.238 vs 0.216±0.312, p< 0.001	0.399±0.317 vs 0.216±0.312, p< 0.001
	AUC 0.773, p< 0.001 , sen 78.95%, spe 70.65%, cut off >0.2226, 36.84% at 10.0% FPR	AUC 0.812, p< 0.001 , sen 75.76%, spe 78.26%, cut off >0.2678, 45.45% at 10.0% FPR	AUC 0.727, p< 0.001 , sen 54.24%, spe 82.61%, cut off >0.2972, 38.98% at 10.0% FPR
miR-195-5p	0.186±0.170 vs 0.069±0.109, p< 0.001	0.265±0.382 vs 0.069±0.109, p< 0.001	0.343±0.798 vs 0.069±0.109, p< 0.001
	AUC 0.789, p< 0.001 , sen 84.21%, spe 71.74%, cut off >0.0586, 31.58% at 10.0% FPR	AUC 0.823, p< 0.001 , sen 81.82%, spe 70.65%, cut off >0.0553, 48.48% at 10.0% FPR	AUC 0.800, p< 0.001 , sen 83.05%, spe 66.30%, cut off >0.0483, 38.98% at 10.0% FPR
miR-199a-5p	0.075±0.043 vs 0.048±0.090, p= 0.002	0.100±0.123 vs 0.048±0.090, p< 0.001	0.111±0.139 vs 0.048±0.090, p< 0.001
	AUC 0.780, p< 0.001 , sen 89.47%, spe 64.13%, cut off >0.0303, 21.05% at 10.0% FPR	AUC 0.757, p< 0.001 , sen 72.73%, spe 78.26%, cut off >0.0491, 15.15% at 10.0% FPR	AUC 0.784, p< 0.001 , sen 79.66%, spe 69.57%, cut off >0.0331, 27.12% at 10.0% FPR

miR-210-3p	0.098±0.114 vs 0.098±0.072, p= 1.000 -	0.091±0.064 vs 0.098±0.072, p= 1.000 -	0.084±0.066 vs 0.098±0.072, p= 0.912 -
miR-221-3p	0.662±0.594 vs 0.302±0.263, p= 0.002 AUC 0.768, p< 0.001 , sen 100.00%, spe 46.74%, cut off >0.1961, 31.58% at 10.0% FPR	0.683±0.554 vs 0.302±0.263, p< 0.001 AUC 0.778, p< 0.001 , sen 90.91%, spe 55.43%, cut off >0.2666, 33.33% at 10.0% FPR	0.681±0.562 vs 0.302±0.263, p< 0.001 AUC 0.786, p< 0.001 , sen 74.58%, spe 70.65%, cut off >0.3469, 37.29% at 10.0% FPR
miR-342-3p	3.472±5.160 vs 3.225±2.650, p= 1.000 -	3.534±1.870 vs 3.225±2.650, p= 0.745 -	3.280±2.084 vs 3.225±2.650, p= 1.000 -
miR-499a-5p	1.090±2.834 vs 0.175±0.339, p< 0.001 AUC 0.827, p< 0.001 , sen 73.68%, spe 82.61%, cut off >0.2280, 47.37% at 10.0% FPR	0.582±0.629 vs 0.175±0.339, p< 0.001 AUC 0.819, p< 0.001 , sen 81.82%, spe 71.74%, cut off >0.1188, 48.48% at 10.0% FPR	0.733±0.418 vs 1.229±0.339, p< 0.001 AUC 0.835, p< 0.001 , sen 81.36%, spe 72.83%, cut off >0.1271, 47.46% at 10.0% FPR
miR-574-3p	0.151±0.176 vs 0.075±0.051, p= 0.021 AUC 0.712, p= 0.001 , sen 68.42%, spe 70.65%, cut off >0.0832, 21.05% at 10.0% FPR	0.129±0.072 vs 0.075±0.051, p< 0.001 AUC 0.765, p< 0.001 , sen 84.85%, spe 63.04%, cut off >0.0713, 27.27% at 10.0% FPR	0.152±0.144 vs 0.075±0.051, p< 0.001 AUC 0.740, p< 0.001 , sen 72.88%, spe 63.04%, cut off >0.0713, 30.51% at 10.0% FPR

MicroRNA gene expression is compared between individual groups using Kruskal-Wallis test. ROC curve analysis shows the potential of individual microRNAs to differentiate between children descending from normal term pregnancies and those descending from preterm pregnancies with regard to gestational age at delivery. Statistically significant results are marked in bold. Mean ± SD values of relative fold gene expression of samples ($2^{-\Delta\Delta Ct}$) are presented. NP, normal pregnancies; ROC, receiver operating characteristic; AUC, area under the ROC curve; sen, sensitivity; spe, specificity; FPR, false positive rate.