

**Supplementary Table 1.** Characteristics and biochemical results for women within the repeated samples cohort classified with abnormal thyroid function in sample 1 (n = 222) stratified by their TPO-Ab status in sample 1 and agreement in the classification of abnormal thyroid function between sample 1 and 2.

	TPO-Ab negative					TPO-Ab positive				
	Samples agree <sup>a</sup>		Samples disagree <sup>b</sup>		p <sup>c</sup>	Samples agree <sup>a</sup>		Samples disagree <sup>b</sup>		p <sup>c</sup>
<b>All pregnancies (n)</b>	<b>56</b>		<b>117</b>			<b>31</b>		<b>18</b>		
Week of blood sampling (median, IQR)										
Sample 1	8	8-9	8	7-8	0.091	8	7-9	8	7-8	0.945
Sample 2	11	11-12	11	11-12	0.869	12	10-12	12	11-13	0.144
TSH in mIU/L (median, IQR)										
Sample 1	1.57	0.28-3.75	1.33	0.56-3.15	0.654	4.73	3.60-7.22	3.65	0.65-4.92	0.025
Sample 2	1.19	0.07-2.92	1.17	0.62-1.81	0.857	3.98	3.27-5.15	2.18	1.95-2.63	<0.001
Δ <sup>d</sup>	0.25	0.01 -0.86	0.26	-0.05-0.80	0.803	0.81	-0.25-2.90	1.13	-0.05-2.72	0.817
ft4 in pmol/L (median, IQR)										
Sample 1	16.3	13.6-20.8	16.5	12.4-20.1	0.438	14.0	12.3-15.1	15.3	14.0-17.3	0.049
Sample 2	17.1	13.6-21.4	16.2	14.5-17.8	0.131	14.1	12.9-15.7	16.0	14.8-16.7	0.016
Δ <sup>d</sup>	-0.65	-1.88-0.51	0.01	-2.11-2.19	0.153	-0.48	-1.52-0.61	0.03	-2.13-1.12	0.922
Age in years (median, IQR)	29.8	26.6-32.5	28.5	25.4-32.3	0.289	28.5	25.4-33.4	29.4	26.5-32.5	0.640
Origin (n, %)										
Born in Denmark	49	87.5	104	88.9		N/A	-	N/A	-	
Not born in Denmark	7	12.5	13	11.1	0.789	N/A	-	N/A	-	-
<b>All births<sup>e</sup> (n)</b>	<b>56</b>		<b>116</b>			<b>31</b>		<b>18</b>		
Pre-pregnancy BMI in kg/m <sup>2</sup> (median, IQR) <sup>f</sup>	23.9	21.2-27.1	23.9	21.1-29.2	0.705	27.7	22.3-32.9	24.8	21.2-29.7	0.416
Parity <sup>f</sup> (n, %)										
Nulliparous	29	52.7	59	50.9		13	41.9	9	50.0	
Multiparous	26	47.3	57	49.1	0.820	18	58.1	9	50.0	0.584
Smoking <sup>f</sup> (n, %)										
No smoking	47	85.5	102	87.9		N/A	-	N/A	-	
Smoking	8	14.5	14	12.1	0.651	N/A	-	N/A	-	-
Fetal gender (n, %)										
Female	30	53.6	51	44.0		12	38.7	11	61.1	
Male	26	46.4	65	56.0	0.237	19	61.3	7	38.9	0.130

Abbreviations: BMI: body mass index; fT4: free T4; IQR: interquartile range; N/A: not applicable; p: p-value ; TPO-Ab: thyroid peroxidase antibodies.

<sup>a</sup> Classification of abnormal maternal thyroid function (defined as TSH or fT4 outside the method- and pregnancy week-specific reference ranges) in sample 1 and 2.

<sup>b</sup> Classification of abnormal maternal thyroid function in sample 1 and euthyroid classification in sample 2.

<sup>c</sup> p-values are results of comparison between groups within TPO-Ab negative and TPO-Ab positive women (samples agree vs. samples disagree).

<sup>d</sup> Computed as the difference between the two samples ( $\Delta = \text{sample1} - \text{sample2}$ ).

<sup>e</sup> Information on maternal pre-pregnancy BMI, parity, smoking, and fetal gender was only available for births (live births and still births).

<sup>f</sup> Women with missing information not included; pre-pregnancy BMI (n < 5), parity (n < 5) and smoking (n < 5).