Supplementary Table 6. In vitro enzymatic activities of CYP21A2 WT and variants before and after normalization to protein expression levels.
The table shows the mean ± SD values of CYP21A2 enzymatic activity toward progesterone and 17α-hydroxyprogesterone for the wild-type enzyme and the eleven variants. “Before normalization” refers to the activity values measured directly from the enzyme assays. “After normalization” indicates activities corrected for relative CYP21A2 protein abundance determined by Western blot quantification. Activities are expressed as percentages of WT activity, which was set to 100%.

These values correspond to the Figures for Functional Analysis of CYP21A2 Variants. Activities are color-coded based on relative activity ranges: black (WT = 100%), grey (moderate impaired activity, >50%), and grey patterned bar (severely impaired activity, ≤ 50%). Differences were considered significant at $p < 0.05$. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

	After Normalization				Before Normalization			
CYP21A2 WT/Variants	Progesterone		17α-hydroxyprogesterone		Progesterone		17α-hydroxyprogesterone	
	Average ± SD	P value	Average ± SD	P value	Average ± SD	P value	Average ± SD	P value
WT	100.00±0.00	-	100.00±0.00	-	100.00±0.00	-	100.00±0.00	-
p.R76K	71.69±0.45	>0.05	76.41±4.81	>0.05	102.85±101.56	>0.05	115.79±102.06	>0.05
p.E162G	57.83±21.58	<0.05	52.85±12.30	<0.001	75.22±17.75	>0.05	93.84±1.27	>0.05
p.S274Y	75.90±0.46	>0.05	45.54±0.92	<0.001	81.23±80.25	>0.05	47.47±49.42	<0.001
p.L308V	30.21±16.66	<0.001	18.15±11.30	<0.001	13.94±8.79	<0.001	9.25±6.86	<0.001
p.S373N	91.69±1.22	>0.05	93.03±21.32	>0.05	84.57±7.79	>0.05	92.42±3.75	>0.05
p.P387L	52.37±0.37	<0.05	19.13±1.28	<0.001	64.71±63.79	<0.01	21.89±25.04	<0.001
p.H393Q	70.43±0.44	>0.05	44.01±0.26	<0.001	113.10±111.70	>0.05	70.65±69.81	<0.05
p.R401G	39.96±9.92	<0.001	41.41±10.44	<0.001	26.82±13.54	<0.001	41.64±22.35	<0.001
p.R436C	26.20±22.66	<0.001	17.97±6.51	<0.001	11.68±7.91	<0.001	10.98±5.90	<0.001
p.S494N	99.40±0.40	>0.05	66.63±1.15	<0.05	99.74±98.95	>0.05	65.45±67.75	<0.05
p.L10del	110.73±0.27	>0.05	99.05±5.37	>0.05	94.09±93.63	>0.05	88.51±79.41	>0.05
pcDNA3	0.00±0.00	-	0.00±0.00	-	0.00±0.00	-	0.00±0.00	-