

Table I Inhibition of enzyme activities of steroid lyase, hydroxylases and dehydrogenase involved in cortisol synthesis

Addition (μM)	Enzyme activity (% of control)					
	P450scc	3β-HSD II	P450c17	P450c21	P45011?	
None	100.0	100.0	100.0	100.0	100.0	
DCHP	(12.5)	96.5 ± 19.8	90.8 ± 6.5	89.9 ± 4.8	87.3 ± 3.3	99.3 ± 18.6
	(25.0)	94.8 ± 27.6	90.9 ± 6.6	84.5 ± 3.9	79.6 ± 3.0*	101.8 ± 7.9
4-Nonylphenol	(12.5)	72.7 ± 13.6	110.2 ± 3.9	56.6 ± 3.4*	51.4 ± 1.5**	121.2 ± 8.5
	(25.0)	55.5 ± 11.4*	91.3 ± 2.3	39.8 ± 4.8**	43.2 ± 1.4**	109.2 ± 12.8
4- <i>n</i> -Octylphenol	(12.5)	156.8 ± 22.6	106.2 ± 1.1	137.2 ± 10.8	116.8 ± 3.9	78.4 ± 9.5
	(25.0)	145.2 ± 14.4	106.0 ± 2.2	99.4 ± 6.0	118.6 ± 8.8	78.3 ± 3.5
4- <i>t</i> -Octylphenol	(12.5)	54.8 ± 4.5*	116.6 ± 3.6	108.3 ± 7.4	78.7 ± 0.9	126.0 ± 12.3
	(25.0)	47.7 ± 4.4**	113.5 ± 1.6	73.6 ± 11.8*	54.8 ± 2.3**	103.6 ± 8.5
4- <i>t</i> -Pentylphenol	(12.5)	106.9 ± 7.4	107.8 ± 0.9	150.1 ± 6.4	106.3 ± 2.7	100.9 ± 11.2
	(25.0)	122.1 ± 9.3	107.1 ± 2.2	137.0 ± 5.3	84.1 ± 2.0	94.9 ± 10.0

Enzyme activities are expressed relative to control experiment. Values are mean ± S.E.M. (n = 3 to 9). Specific enzyme activity of a typical preparation of mitochondria and microsomal enzyme from H295R cells was 9.4 ± 1.1 pmol/min/mg protein for P450scc (C_{20,22}-lyase), 103.2 ± 7.7 pmol/min/mg protein for 3β-HSD II (3β-hydroxysteroid dehydrogenase type II), 100.5 ± 6.0 pmol/min/mg protein P450c17 (17β-hydroxylase/C_{17,20}-lyase), 24.4 ± 1.5 pmol/min/mg protein for P450c21 (21-hydroxylase), and 28.8 ± 2.6 pmol/min/mg protein for P45011? (11β-hydroxylase). Methods for determination of enzyme activities are given in "Materials and Methods." Statistical analysis was carried out using the actual values. Asterisks denote significant difference from control (untreated); *p? 0.05, **p? 0.01.