21–hydroxylase
PTO/6OH–THE [6]
21–hydroxylase

PTO/(THE+6OH−THE) [7]

steroid metabolite ratio

age, weeks

boys

girls
21–hydroxylase

PTO/(THE+6OH−THE+6OH−\(\beta\)−Cl) [8]

steroid metabolite ratio

age, weeks

boys

girls
$3\beta$-HSD
5PT/THE [9]
$3\beta$-HSD

$5\text{PT}/6\text{OH-THE}$ [10]
3β-HSD

5PT/(THE+6OH−THE) [11]
$3\beta$-HSD

$\frac{5\text{PT}}{(\text{THE}+6\text{OH}^{-}\text{THE}+6\text{OH}^{-}\beta^{-}\text{Cl})}$ [12]
$3\beta$-HSD
DHEA/THE [13]
$3\beta$–HSD

DHEA/6OH–THE [14]
$3\beta$-HSD

DHEA/(THE+6OH−THE) [15]
$3\beta$-HSD

DHEA/$(\text{THE}+6\text{OH}\text{−THE}+6\text{OH}\text{−}\beta\text{−Cl})$ [16]
To distinguish 21-hydroxylase from $3\beta$-HSD

5PT/PTO [17]
$11\beta$–hydroxylase
THS/THE [18]
$11\beta$-hydroxylase
THS/6OH-THE [19]
11β-hydroxylase

THS/(THE+6OH−THE) [20]

age, weeks

steroid metabolite ratio

0.00

0.01

0.02

0.03

0

10

20

30

40

50
11β-hydroxylase

THS/(THE+6OH−THE+6OH−β−Cl) [21]
$17\alpha$-hydroxylase

THA+THB+5\(\alpha\)THB/THE [22]
$17\alpha$-hydroxylase

THA+THB+5$\alpha$THB/6OH−THE [23]
17α-hydroxylase

$\text{THA} + \text{THB} + 5\alpha\text{THB}/(\text{THE} + 6\text{OH−THE})$ [24]
$17\alpha$–hydroxylase: $\text{THA} + \text{THB} +$

$5\alpha \text{THB}/(\text{THE} + 6\text{OH} – \text{THE} + 6\text{OH} – \beta – \text{Cl})$ [25]
$17\alpha$-hydroxylase

$\text{THA}+\text{THB}+5\alpha\text{THB}/(\text{AT}+\text{ET})$ [26]
P450 oxidoreductase

\[(17\text{HP}+\text{PT})/(\text{AT}+\text{ET})\] [27]
P450 oxidoreductase

\((17\text{HP}+\text{PT})/\text{THE}\) [28]
P450 oxidoreductase

(17HP+PT)/6OH−THE [29]
P450 oxidoreductase

\[
\frac{(17\text{HP}+\text{PT})}{(\text{THE}+6\text{OH}-\text{THE})} [30]
\]
P450 oxidoreductase

\[
\frac{(17\text{HP}+\text{PT})}{(\text{THE}+6\text{OH}^-\text{THE}+6\text{OH}^-\beta^-\text{Cl})} \ [31]
\]
P450 oxidoreductase
PD/THE [32]
P450 oxidoreductase
PD/6OH−THE [33]
P450 oxidoreductase
PD/(THE+6OH–THE) [34]
P450 oxidoreductase

$PD/(THE+6OH−THE+6OH−\beta−Cl)$ [35]
$11\beta$–HSD type 2
F/E [36]
$11\beta$–HSD type 2

\[(\text{THF} + 5\alpha\text{THF})/\text{THE} \] [37]
$11\beta$–HSD type 2

$(\alpha-C+\beta-C)/(\alpha-\text{Cl}+\beta-\text{Cl})$ [38]
$11\beta$-HSD type 2: $(\alpha C + \beta C) / (\alpha Cl + \beta Cl + 6OH\alpha Cl + 1\beta OH\beta Cl + 6OH\beta Cl)$ [39]
11β-HSD type 2

\((F+E)/(THF+5\alpha THF+THE)\) [40]
11\(\beta\)-HSD type 1

THE/(THF+5\(\alpha\)THF) [41]
$11\beta$-HSD type 1

$(\alpha-\text{Cl} + \beta-\text{Cl})/(\alpha-\text{C} + \beta-\text{C})$ [42]
$11\beta$-HSD type 1: $(\alpha Cl + \beta Cl + 6OH\alpha Cl + 1\beta OH\beta Cl + 6OH\beta Cl)/(\alpha C + \beta C)$ [43]
$5\alpha$-reductase

THF$/5\alpha$THF [44]
$5\alpha$-reductase

THB/$5\alpha$THB [45]