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Intracrine androgen biosynthesis, metabolism and action revisited

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Abbreviations: 11KA4, 11-keto-androstenedione; 11KDHT, 11-keto-5 α -dihydrotestosterone; 11KT, 11-keto-testosterone; 11OHA4, 11 β -hydroxy-androstenedione; 11OHDHT, 11 β -hydroxy-5 α -dihydrotestosterone; 11OHT, 11 β -hydroxy-testosterone; 17 α HP, 5 α -pregnane-17 α -ol-3,20-one; 17OHPROG, 17 α -hydroxy-progesterone; 3 α -adiol, 5 α -androstane-3 α ,17 β -diol; 5 α -dione, 5 α -androstane-3,17-dione; 5-diol, androst-5-ene-3 β ,17 β -diol; A4, androstenedione (androst-4-ene-3,17-dione); AKR, aldo-keto reductase; AR, androgen receptor; AST, androsterone (5 α -androstane-3 α -ol-17-one); CHOL, cholesterol; CRPC, castration resistant prostate cancer; CYP, cytochrome P450; DHEA, dehydroepiandrosterone (androst-5-ene-3 β -ol-17-one); DHEAS, dehydroepiandrosterone sulfate; EpiAST, 5 α -androstane-3 β -ol-17-one ; EpiT, epitestosterone (17 α -hydroxy-testosterone, androst-4-ene-17 α -ol-3-one); E1, estrone ; E1S, estrone sulfate; E2, estradiol ; ETIO, etiocholanolone (5 β -androstane-3 α -ol-17-one); DHT, 5 α -dihydrotestosterone (5 α -androstane-17 β -ol-3-one); HSD, hydroxysteroid dehydrogenase; OATP, organic anion-transporting polypeptide; PAPS, 3'-phospho-adenosine-5'-phosphosulfate; PCOS, polycystic ovary syndrome; Pdiol, 5 α -pregnane-3 α ,17 α -diol-20-one; PORD, cytochrome P450 oxidoreductase deficiency; PREG, pregnenolone; PROG, progesterone; StAR, steroidogenic acute regulatory protein; SHBG, sex hormone-binding globulin; STS, steroid sulfatase; SULT, sulfotransferase; T, testosterone (androst-4-ene-17 β -ol-3-one); UGT, uridine diphosphate-glucuronosyl transferase

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