Testosterone
Item No. 15645

CAS Registry No.: 58-22-0
Formal Name: 17β-hydroxy-androst-4-en-3-one
Synonym: NSC 9700
MF: C_{19}H_{28}O_{2}
FW: 288.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}}: 241 \text{ nm} \)
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Description

Testosterone is the prototypic and predominant circulating androgenic steroid. It plays a major role in the growth and function of many reproductive and non-reproductive tissues and organs including muscle, liver, and brain, directing the development of the male phenotype during embryogenesis and at puberty. Testosterone is synthesized from 17α-hydroxy progesterone by the enzymes 17,20-lyase and 17β-hydroxysteroid dehydrogenase in the gonads of both males and females. In many target cells it is reduced to 5α-dihydro testosterone, which mediates many of the biological actions of testosterone. It is then further metabolized to 17β-estradiol by aromatase. Serum levels of testosterone range from 0.5 ng/ml in women to approximately 6-10 ng/ml in men, declining with age.

References