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17beta-Hydroxysteroid Dehydrogenase Type 5 Inhibitor ASP9521

National Cancer Institute

Source

National Cancer Institute. *17beta-Hydroxysteroid Dehydrogenase Type 5 Inhibitor ASP9521*. NCI Thesaurus. Code C133224.

A selective, orally bioavailable inhibitor of 17beta-hydroxysteroid dehydrogenase type 5 (17bHSD5, aldo-keto reductase 1C3; AKR1C3), with potential antineoplastic activity. Upon administration, ASP9521 selectively binds to and inhibits the activity of 17bHSD5. This prevents the conversion of the adrenal androgens dehydroepiandrosterone and androstenedione into 5-androstenediol and testosterone. By blocking testosterone production, ASP9521 may inhibit the growth of testosterone-dependent cancers such as castration-resistant prostate cancer (CRPC). 17bHSD5, expressed both in normal prostate tissue and in prostate cancer (PC), plays a crucial role in persistent production of androgens despite castration; its expression is associated with increased malignancy of PC.