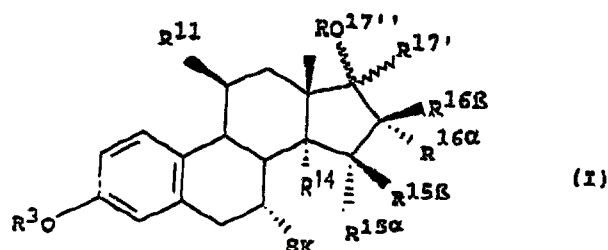


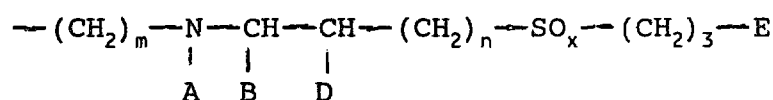
Abstract

This invention describes new, substituted 7α -(ξ -aminoalkyl)-estratrienes of general formula I



in which

side chain SK is a radical of partial formula



whereby m is 4, 5 or 6,

n is 0, 1 or 2,

x is 0, 1 or 2,

A is a hydrogen atom or a C_{1-5} alkyl group,

B and D each are a hydrogen atom, or

A and B together are an alkylene group $\text{---}(\text{CH}_2)_p\text{---}$ with $p = 2, 3, 4$ or 5 , and D is a hydrogen atom or

A and D together are an alkylene group $\text{---}(\text{CH}_2)_q\text{---}$ with $q = 2, 3$ or 4 , and B is a hydrogen atom, and

E is an unsubstituted ethyl radical or an ethyl radical that is fluorinated in one to five places, or terminal substituent $\text{---}(\text{CH}_2)_3\text{---E}$ in the side chain is replaced by an optionally substituted aryl or heteroaryl radical, which is bonded

directly or via a mono-, di- or trimethylene group
to the sulfur atom,

R^3 is a hydrogen atom, a hydrocarbon radical with up to 8 carbon atoms or a radical of partial formula $R^{3'}-C(O)-$, in which $R^{3'}$ is a hydrogen atom or a hydrocarbon radical with up to 8 carbon atoms or a phenyl radical,

R^{11} is a hydrogen atom, a halogen atom or a nitrooxy group $-O-NO_2$,

R^{14} , $R^{15\alpha}$, $R^{15\beta}$, $R^{16\alpha}$ and $R^{16\beta}$ each are a hydrogen atom or R^{14} and $R^{15\alpha}$ are an additional bond or a methylene bridge, or $R^{15\beta}$ is a methyl group and $R^{15\alpha}$ is a hydrogen atom, or $R^{15\alpha}$ and $R^{15\beta}$ in each case are a methyl group, or $R^{15\beta}$ and $R^{16\beta}$ together are a methylene bridge, or $R^{16\alpha}$ or $R^{16\beta}$ is a halogen atom or $R^{16\alpha}$ and $R^{16\beta}$ together are a methylenidene group and the remaining substituents R^{14} , $R^{15\alpha}$, $R^{15\beta}$, $R^{16\alpha}$ and $R^{16\beta}$ are each a hydrogen atom,

$R^{17'}$ in α - or β -position is a hydrogen atom, a C_{1-5} alkyl, C_{2-5} alkenyl or C_{2-5} alkynyl group or a trifluoromethyl group and

$R^{17''}$ is a hydrogen atom or a radical of partial formula $R^{17'''}-C(O)-$, in which $R^{17'''}$ is a hydrogen atom or a hydrocarbon radical with up to 8 carbon atoms, or, if $R^{17'}$ is in α -position, $R^{17'}$ together with R^{14} means an ethano bridge,

provided that unless A and B together stand for $-(CH_2)_p-$ or A and D together stand for $-(CH_2)_q-$, at least one of substituents R^{11} , R^{14} , R^{15a} , R^{15b} , R^{16a} and R^{16b} is not a hydrogen atom, as well as their physiologically compatible addition salts with organic and inorganic acids.

The new compounds represent compounds with very strong antiestrogenic action.

The compounds according to the invention are, on the one hand, pure antiestrogens, or, on the other hand, antiestrogens with partial estrogenic action. Based on this spectrum of action, the new compounds are highly suitable for the production of pharmaceutical agents for tumor therapy and hormone replacement treatment.