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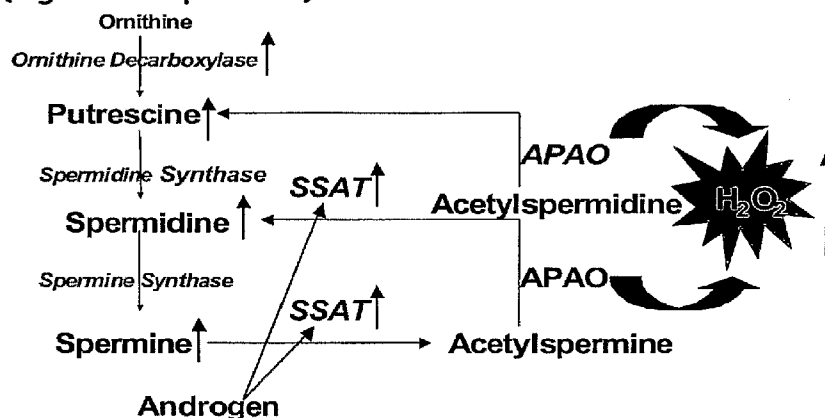
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(54) Title: NL, N4-BIS (BUTA-I, 3-DIENYL) BUTANE-I, 4-DIAMINE PHARMACEUTICAL COMPOSITIONS AND USES THEREOF

**Polyamine Biosynthesis
(high in the prostate)**



(57) Abstract: N1,N4-bis(buta-1,3-dienyl)butane-1,4-diamine dihydrochloride (also referred to as MDL 72,527 and N,N'-di-2,3-butadienyl-1,4-butanediamine dihydrochloride), or salts or solvates thereof, its use as an antioxidant, its use in preventing and/or treating prostate cancer in male humans, and its use in reducing the concentration of reactive oxygen species in human prostate gland tissue or any other body tissue, and methods of making the compound thereof. Other methods include inhibiting acetyl polyamine oxidase in human prostate tissue or other human body tissue comprising administering a therapeutic amount of N,N'-bis(2,3-butadienyl)-1,4-butanediamine or a salt or solvate thereof to the human, and a method of determining oxidative stress in human prostate tissue or other human or animal body tissue comprising measuring a ratio of oxidized 2',7'-dichlorodihydrofluorescein diacetate fluorescence :DNA fluorescence and hydroethidine dye fluorescence *ex vivo* or *in vivo*.

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