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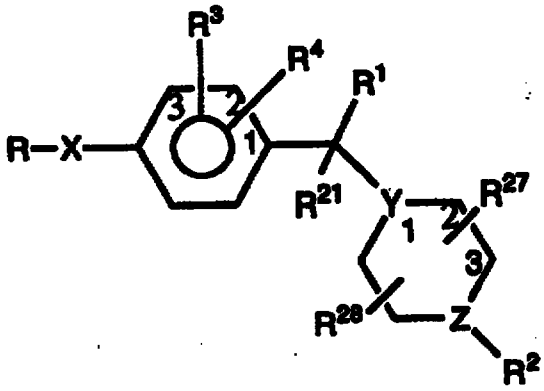
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(54) Title: BENZYLPIPERIDINES AND PIPERAZINES AS MUSCARINIC ANTAGONISTS

(57) Abstract

Di-N-substituted piperazine or 1,4 di-substituted piperadine compounds in accordance with formula (I) (including all isomers, salts, esters, and solvates) wherein R, R^1, R^2, R^3, R^4, R^{21}, R^{27}, R^{28}, X, Y, and Z are as defined herein are muscarinic antagonists useful for treating cognitive disorders such as Alzheimer's disease. Pharmaceutical compositions and methods of preparation are also disclosed. Also disclosed are synergistic combinations of compounds of the above formula or other compounds capable of enhan cing acetylcholine release with acetylcholinesterase inhibitors.



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