Review Article

MOLECULAR DOCKING APPROACHES TO CHYMASE INHIBITION: ROLE OF IMIDAZOLE DERIVATIVES IN HYPERTENSION THERAPY: A REVIEW

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The rennin-angiotensin system is closely related to hypertension, a worldwide health issue, with chymase being essential for the production of angiotensin II. This review examines the therapeutic potential of chymase inhibitors by analysing previous molecular docking and computational research, with an emphasis on imidazole derivatives. The structural variety and binding effectiveness of imidazole-based drugs are highlighted in current research as promising options for the treatment of hypertension or high blood pressure. Understanding these interactions has been greatly aided by computational methods such as molecular docking, ADMET profiling, and QSAR research. The essay highlights information gaps, summarises current developments, and explores potential future uses of imidazole derivatives in drug discovery.

KEYWORDS: Chymase inhibitors, Imidazole derivatives, Molecular Docking, Computational studies, ADMET profiling.

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