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Design and synthesis of novel triazole based small molecules mimicking HDACi as new modular drugs candidate against Omicron and future variants of Sars-Cov-2

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Due to the multi-modal nature of coivd 19 infection, dual target inhibition simultaneously by a solo molecule can be helpful and a possible operative method against coivd 19 and its variants. Histone-deacetylase (HDAC) has been extensively examined as a useful type of anti-cancer molecule due to its dynamic part in numerous biotic biological progressions, for example cell-proliferation, cell-metastasis, and cell-apoptosis. Numerous HDACi (HDAC-inhibitors) like vorinostat, panobinostat are clinically permitted and their direct usage in covid 19 patients may be helpful. Therefore, in this work, we report five novel small molecules mimicking HDACi with a double targeting capability of HDAC and covid 19 causing proteins M^{pro} and its variant omicron S-protein. The strategy that has been employed is the use of simple click reaction to develop these compounds along with their *in silico* study as inhibitors of covid 19 infection.

Keywords: Small molecule library, Click chemistry, HDACi, Docking, Quantitative structure property relationship (QSPR), Drug likeliness