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Hydrazone-hydrazide derivatives as potential antineoplastic agents by inhibiting the interaction between nucleic acids and protein hnRNP

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Cancer (neoplasia) is defined as a chronic multifactorial disease characterized by proliferation of transformed cells. From the molecular analysis of healthy and neoplastic tissues at different stages, it is possible to identify markers related to the stages of cancer, allowing choices more appropriate and effective therapies. The hnRNPK protein was identified as one of those markers in various malignancies. The hnRNPK protein has three KH domains, which are responsible for its binding with DNA and RNA. 15 hydrazide-hydrazonederivatives synthesized in our laboratory had their ability to inhibit protein-nucleic acid interaction. One of these compounds showed the ability to prevent the interaction and study of molecular docking between the hnRNPK protein and hyrazide-hydrazone derivative which provide important details of the modes of binding of the compound in the binding site domain KH3 used for docking

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