World Academy of Science, Engineering and Technology
International Journal of Bioengineering and Life Sciences
Vol:20, No:02, 2026

The Effect of Sorafenibe on Soat1 Protein by Using Molecular Docking Method

Authors : Mahdiyeh Gholaminezhad

Abstract : Context: The study focuses on the potential impact of Sorafenib on SOAT1 protein in liver cancer treatment, addressing the need for more effective therapeutic options. Research aim: To explore the effects of Sorafenib on the activity of SOAT1 protein in liver cancer cells. Methodology: Molecular docking was employed to analyze the interaction between Sorafenib and SOAT1 protein. Findings: The study revealed a significant effect of Sorafenib on the stability and activity of SOAT1 protein, suggesting its potential as a treatment for liver cancer. Theoretical importance: This research highlights the molecular mechanism underlying Sorafenib's anti-cancer properties, contributing to the understanding of its therapeutic effects. Data collection: Data on the molecular structure of Sorafenib and SOAT1 protein were obtained from computational simulations and databases. Analysis procedures: Molecular docking simulations were performed to predict the binding interactions between Sorafenib and SOAT1 protein. Question addressed: How does Sorafenib influence the activity of SOAT1 protein and what are the implications for liver cancer treatment? Conclusion: The study demonstrates the potential of Sorafenib as a targeted therapy for liver cancer by affecting the activity of SOAT1 protein. Reviewers' Comments: The study provides valuable insights into the molecular basis of Sorafenib's action on SOAT1 protein, suggesting its therapeutic potential. To enhance the methodology, the authors could consider validating the docking results with experimental data for further validation.

Keywords : liver cancer, sorafenib, SOAT1, molecular docking
Conference Title : ICCB 2026 : International Conference on Cancer Bioinformatics
Conference Location : Amsterdam, Netherlands
Conference Dates : February 08-09, 2026