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Poster Presentation Certificate

An In-Silico Survey On The Structure
And Function Of The Corresponding Antigens Of The Esophageal Malignancies In Order To Immunotoxin Development

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An In-Silico Survey On The Structure And Function Of The Corresponding Antigens Of The Esophageal Malignancies In Order To Immunotoxin Development

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Abstract

Esophageal cancer that refers to malignancies of the epithelium of the esophagus tissue, is sixth leading cause of death among cancers. This type of cancer is one of the most prevalent cancers in Iran. So that, among 35,000 deaths of cancer in Iran, about 5800 cases of them is due to this type of cancer. Considering, several methods with various efficacy have been developed in the world for prognosis, diagnosis and treatment of this disease. Among therapeutic approaches, immunotoxin development with limited side effects is a desirable way. However, this strategy is demands to characterization of the cell surface specific antigens of esophageal cancer. Bearing in mind, a comprehensive profile of cell surface specific antigens of the esophageal cancer were gathered in this study. Subsequently, the structural and functional characterizations of the antigens were performed, based on in-silico investigation. The results of this study led to the detection of six specific antigens for esophageal cancer with different structural, functional and expression characteristics at the level of transcription and translation, including ADORA3, CLCA2, DSC3, LY6D, HER2, and MUC21. However, among them the MUC21with the highest level of the expression considered as suitable biomarker for diagnosis as well as immunotoxin development. Accordingly, our investigation led to detection the corresponding ligands of the MUC21 as suitable context for immunotoxin designing which are considered in our group for more analysis.

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