

عنوان مقاله:

The Highlighted Role of GAPDH and Nitric-Oxide Synthase Regulator Activity in Proton Beam Irradiated Melanoma BLM Cells

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خلاصه مقاله:

Abstract Introduction: Human melanoma is a type of invasive tumor that its treatments is challenging. To better understand the proton irradiation mechanisms as one of the widely applied therapy for this type of cancer, bioinformatics analysis of proteomics outcome could be beneficial. Methods: Protein-protein interaction network analysis of differentially expressed proteins (DEPs) of melanoma BLM (BRO Lung Metastasis) cells in the treatment of 3 Gy dosage proton therapy is performed in this study via Cytoscape V.3.7.2. and its integrated plug-ins. Results: A number of 18 DEPs were searched for network constructions and limited numbers of (query +neighbor proteins) were found central. The hub-bottlenecks or in the other words, central nodes were GAPDH, ACTB, ALB, AKT1, TP53, and EGFR. The fist mentioned proteins is from DEPs. Enrichment analysis of these elements identified as nitric-oxide synthase regulator activity and positive regulation of norepinephrine uptake that may be key in the mechanisms of proton therapy. Conclusion: In conclusion, the identified central nodes (EGFR, TP53, ALB, AKT1, GAPDH, and ACTB) and the related biological terms consist with the nature of melanoma and also radiation effects. Keywords: Human melanoma Radiation Network analysis Biological process

کلمات کلیدی:

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