

## عنوان مقاله:

Identification of PI3K Isoforms in Human Prostate Cancer Cell Lines (PC3, DU145) and Human Bladder Carcinoma (Cell line 5637)

## محل انتشار:

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## خلاصه مقاله:

There exists an association between PI3K pathway licentious activity and the considerable feature of high metastatic potential of the genitourinary cancer cells. Although DU 145 and 5637 have functional phosphatase and tensin homolog (PTEN) tumor suppressor gene, which antagonizes PI3K function, PC-3 is null for PTEN gene. In pursuit to explain why PTEN bearing cell lines display high metastatic behavior, we searched for any discrepancy in PI3K isoforms expression pattern between these cell lines. Gathering gene bank data files, specific primers were redesigned, for all the genes of 12 studied isoforms from 3 different classes of PI3K. Total RNA was extracted and examined by Real-Time PCR to compare the cells for the type and amount of the isoforms which expressed. C $\alpha$  and R2 isoforms are indicative of an equal expression for PC3 and DU145, R3 transcripts revealed 80% decrease in DU145 and C $\beta$ , R1 and C2 $\alpha$  demonstrated an increased expression in DU145. When a comparison is made between 5637 and PC3, it can be seen that although a little decrease in the level of R3 transcripts was demonstrated, the amount of C $\alpha$ , C $\beta$ , R2, R1 and C2 $\alpha$  increased. In conclusion in this study it is proposed that R1, R2, C $\alpha$ , C $\beta$ , C2 $\alpha$  and R1, C $\beta$ , C2 $\alpha$  are candidate genes for silencing via RNAi in 5637 and DU145, respectively, to evaluate their roles in metastatic behavior of the both studied PTEN bearing cell lines

## کلمات کلیدی:

PI3K Isoforms, Prostate, Bladder, 5637, DU145, PC3

## لینک ثابت مقاله در پایگاه سیویلیکا:

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