

3 - 81 PCBP1 Promotes Inhibitory Effect of Ionizing Radiation on Cervical Cancer HeLa Cells

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Poly(C)-binding protein 1 (PCBP1 also known as hnRNPE1), a member of the hnRNP family that contains three KH domains, is widely expressed in many human tissues^[1]. PCBP1 is known to participate in the regulation of RNA transcription, pre-mRNA processing, maturation, and mRNA export^[2-5]. PCBP1 has been reported to play crucial roles in a broad-spectrum of transcriptional and translational events^[2]. PCBP1 is also involved in tumor malignancy^[3]. Reduced PCBP1 expression may be permissive for HPV proliferation and progression to cervical cancer^[3]. Up to now, PCBP expression in cancer cells exposed to carbon ion beams irradiation was not reported. In our study, overexpression of PCBP1 in HeLa cells exposed to carbon ion beams was studied. Interestingly, PCBP1 can decrease the tumor cell growth (Fig. 1). In a word, PCBP1 can promote the effect of carbon ion beam irradiation, and this gene may be as potential therapeutic targets for irradiation therapy.

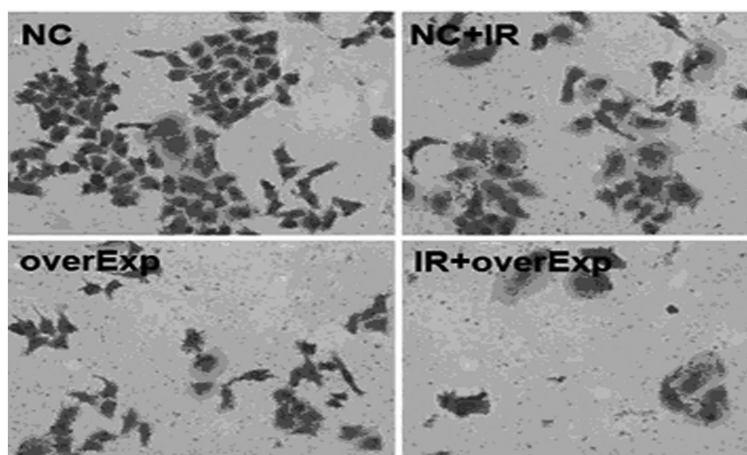


Fig. 1 Overexpression of PCBP1 in HeLa cells and measurement of proliferation of these cells exposed to carbon ion beams.

References

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