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Characterisation and evaluation of anticancer, antimicrobial and antioxidant activity of the pigment from *Pyxidicoccus* sp. S252

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Myxobacteria, a group of δ-proteobacteria, are known to be prolific producers of bioactive secondary metabolites. *Pyxidicoccus* sp. S252, a myxobacterial strain, produces an orange pigment. The pigment was extracted from the cells, and its bioactive potential was evaluated. The pigment extract inhibited Gram-positive bacteria and fungi (*Alternaria* sp. and *Fusarium* sp.) and exhibited antioxidant properties. The methanol extract of the pigment inhibited human osteosarcoma cells in vitro, with an IC50 of 87 ug/mL against MG-63 cells. The active fraction of the pigment implicated in antimicrobial activity was identified as a flexirubin-type pigment.

Keywords: Bioactive, Cytotoxic, Myxobacteria, Pigment, *Pyxidicoccus* sp. S252

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