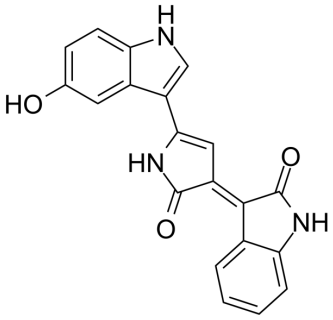
Violacein

Cat. No.:	HY-119809
CAS No.:	548-54-9
Molecular Formula:	$C_{20}H_{13}N_3O_3$
Molecular Weight:	343.34
Target:	Apoptosis; Endogenous Metabolite
Pathway:	Apoptosis; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Violacein, a secondary metabolite produced by several microorganisms, possesses potent anticancer and low side effects. Violacein possesses antioxidant properties. Apoptosis inducer[1][2].
IC_{50} & Target	Microbial Metabolite
In Vitro	Violacein (0.25-3 μM; 24h; HCT116 and HT29 cells) possesses anticancer activity in both 2D and 3D cell models[1]. Violacein decreases RTKs expression and disturbs signaling pathways in CRC cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay[1].

Cell Line:	HCT116 and HT29 (1.8 × 104 cells/well-100 μL) cells.
Concentration:	0.25, 0.5, 1.0, 1.5, 2.0, 2.5, and 3.0 μM.
Incubation Time:	24h.
Result:	In the 2D culture model, the violacein treatment reduced the cell viability, since there was a decrease in formazan production in the HT29 and HCT116 cell lines. Moreover, HT29 was more sensitive to violacein, as evidenced by the IC_{50} value (0.6 μM) compared to HCT116 (1.2 μM).

REFERENCES

[1]. Patricia F de Souza Oliveira, et al. Violacein negatively modulates the colorectal cancer survival and epithelial-mesenchymal transition. J Cell Biochem. 2022 Jul;123(7):1247-1258.

[2]. Marlon Konzen, et al. Antioxidant properties of violacein: possible relation on its biological function. Bioorg Med Chem. 2006 Dec 15;14(24):8307-13.

Caution: Product has not been fully validated for medical applications. For research use only.

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