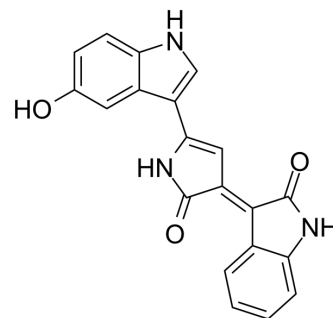


Violacein

| | |
|--------------------|---|
| Cat. No.: | HY-119809 |
| CAS No.: | 548-54-9 |
| Molecular Formula: | C ₂₀ H ₁₃ N ₃ O ₃ |
| Molecular Weight: | 343.34 |
| Target: | Apoptosis; Endogenous Metabolite |
| Pathway: | Apoptosis; Metabolic Enzyme/Protease |
| Storage: | <div>Powder -20°C 3 years</div> <div>In solvent -80°C 6 months</div> <div>-20°C 1 month</div> |



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 × 10 ⁴ 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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