Violacein
from *Janthinobacterium lividum*

Catalog Number V9389
Storage Temperature 2–8 °C

CAS RN 548-54-9

Violacein, a violet pigment, is an indole derivative produced by different bacterial strains such as *Chromobacterium violaceum*, *Janthinobacterium lividum*, *Chromobacterium lividum*, and *Pseudoalteromonas luteoviolacea*. This pigment possesses antitumoral, antibacterial, antiulcerogenic, antiileishmanial, and antiviral activities.\(^1\)\(^-\)\(^5\) The antiprotosoal activity of violacein is also detected for its derivative deoxyviolacein.\(^5\) Violacein and its \(\beta\)-cyclodextrin complexes are found to trigger apoptosis and differentiation in HL60 leukemic cells.\(^2\) Violacein cytotoxicity in HL60 cells is preceded by activation of caspase 8, transcription of NF-\(\kappa\)B target genes, and p38-MAPK activation, which resembles TNF-\(\alpha\) signal transduction in these cells.\(^3\) These properties make violacein a member of a novel class of cytotoxic drugs mediating apoptosis of HL60 cells by way of specific activation of TNF receptor 1.\(^6\)

Purity (HPLC):
- violacein and deoxyviolacein >98%
- violacein ≥85%

**Precautions and Disclaimer**
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**
Violacein is insoluble in water. It is soluble in alcohols such as methanol and ethanol, and soluble in acetone.

**Storage/Stability**
Store the product at 2–8 °C. Under these conditions, the product is stable for two years.

**References**