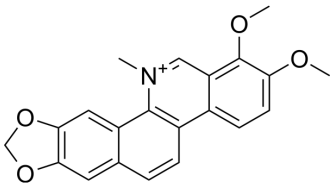
Chelerythrine

Cat. No.:	HY-N2359
CAS No.:	34316-15-9
Molecular Formula:	$C_{21}H_{18}NO_4$
Molecular Weight:	348.37
Target:	PKC; Bcl-2 Family; Apoptosis; Autophagy
Pathway:	Epigenetics; TGF-beta/Smad; Apoptosis; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Chelerythrine is a natural alkaloid, acts as a potent and selective Ca^{2+}/phospholipid-dependent PKC antagonist, with an IC_{50} of 0.7 μM[1]. Chelerythrine has antitumor, antidiabetic and anti-inflammatory activity[2]. Chelerythrine inhibits the BclXL-Bak BH3 peptide binding with IC_{50} of 1.5 μM and displaces Bax from BclXL. Chelerythrine triggers apoptosis and autophagy [3][4].
IC_{50} & Target	PKC 0.7 μM (IC_{50})

CUSTOMER VALIDATION

- FASEB J. 2019 Dec;33(12):13644-13659.
- J Headache Pain. 2022 Mar 8;23(1):35.
- Cell Commun Signal. 2021 Oct 11;19(1):103.
- Front Pharmacol. 13 May 2021.
- Sci Rep. 2017 Aug 23;7(1):9201.

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REFERENCES

[1]. Herbert JM, et al. Chelerythrine is a potent and specific inhibitor of protein kinase C. Biochem Biophys Res Commun. 1990 Nov 15;172(3):993-9.

[2]. Shi B, et al. Protein kinase C inhibitor chelerythrine attenuates partial unilateral ureteral obstruction induced kidney injury in neonatal rats. Life Sci. 2019 Jan 1;216:85-91.

[3]. Chan SL, et al.Identification of chelerythrine as an inhibitor of BclXL function.J Biol Chem. 2003 Jun 6;278(23):20453-6.

[4]. Tang ZH, et al.Induction of reactive oxygen species-stimulated distinctive autophagy by chelerythrine in non-small cell lung cancer cells.Redox Biol. 2017 Aug;12:367-376.

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

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