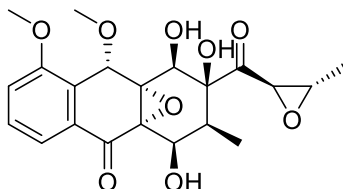


Mensacarcin

Code No.: **BIA-M1914**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

Specifications

CAS #	:	808750-39-2
Molecular Formula	:	C₂₁H₂₄O₉
Molecular Weight	:	420.4
Source	:	<i>Streptomyces</i> sp.
Appearance	:	White to off-white solid
Purity	:	>95% by HPLC
Long Term Storage	:	-20°C
Solubility	:	Soluble in DMSO or methanol

Application Notes

Mensacarcin is an unusual anthracene metabolite of *Streptomyces* sp. containing nine stereogenic centres and two epoxy functionalities first isolated by Zeeck and co-workers in the late 1990s. Mensacarcin has broad antitumor activity. Mensacarcin activates caspase-3/7-dependent apoptotic pathways and induces cell death in SK-Mel-28 and SK-Mel-5 melanoma cells with the BRAF(V600E) mutation associated with drug resistance, showing characteristic chromatin condensation as well as poly(ADP-ribose)polymerase-1 cleavage. The epoxy moieties are primarily responsible for the cytotoxic effect of mensacarcin.

References

1. Towards a total synthesis of the new anticancer agent mensacarcin: synthesis of the carbocyclic core. Tietze L. et al. *Chemistry* 2004, 10, 5233.
2. The natural product mensacarcin induces mitochondrial toxicity and apoptosis in melanoma cells. Plitzko B. et al. *J Biol Chem.* 2017, 292, 21102.
3. Insights into the bioactivity of mensacarcin and epoxide formation by MsnO8. Maier S. et al. *Chem Bio Chem.* 2014, 15, 749.