

Data Sheet

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 Product Name
 : Difopein

 Cat. No.
 : PC-61232

 CAS No.
 : 396834-58-5

 Molecular Formula
 : C₂₇₃H₄₂₄N₇₆O₈₉S₆

Molecular Weight : 6387.17

Target : 14-3-3 Protein

Solubility : 10 mM in DMSO

Ser-Ala-Asp-Gly-Ala-Pro-His-Cys-Val-Pro-Arg-Asp-Leu-Ser-Trp-Leu-Asp-Leu-Glu-Ala-Asn-Met-Cys-Leu-Pro-Gly-Ala-Ala-Gly-Leu-Asp-Ser-Ala-Asp-Gly-Ala-Pro-His-Cys-Val-Pro-Arg-Asp-Leu-Ser-Trp-Leu-Asp-Leu-Glu-Ala-Asn-Met-Cys-Leu-Pro-Gly-Ala-Ala-Gly-

Leu-Glu

Biological Activity

Difopein is a specific, competitive inhibitor of 14-3-3/ligand interactions with high affinity.

Difopein blocks the ability of 14.3.3 to bind to target proteins such as Raf-1, Bad, ASK1 and exoenzyme S, induces apoptosis of human glioma cells through down-regulating Bcl-2, up-regulating Bax and activating caspase-9 and caspase-3, and suppresses tumor growth in mice.

Difopein also enhances the ability of cisplatin to kill cells.

References

Masters SC, et al. *J Biol Chem*. 2001 Nov 30;276(48):45193-200.

Lalle M, et al. *J Biol Chem*. 2006 Feb 24;281(8):5137-48.

Cao W, et al. *Apoptosis*. 2010 Feb;15(2):230-41.

Foote M, et al. *Biol Psychiatry*. 2015 Sep 15;78(6):386-95.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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