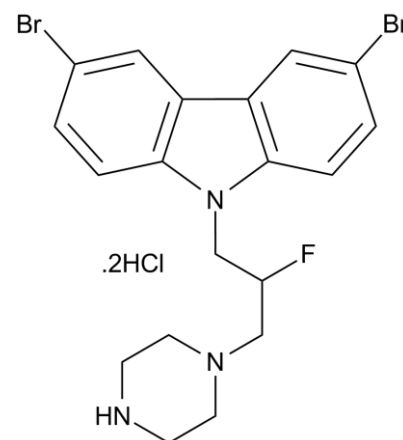


Product Data Sheet

Chemical Properties

Product Name:	iMAC2
Cas No.:	335166-36-4
M.Wt:	542.11
Formula:	C ₁₉ H ₂₀ Br ₂ FN ₃ .2HCl



Chemical Name:	3,6-dibromo-9-(2-fluoro-3-(piperazin-1-yl)propyl)-9H-carbazole
Canonical SMILES:	FC(CN1CCNCC1)CN2C3=C(C=C(Br)C=C3)C4=C2C=CC(Br)=C4
Solubility:	Limited solubility
Storage:	Desiccate at RT
General tips:	For obtaining a higher solubility , please warm the tube at 37° C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20° C for several months.
Shopping Condition:	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request

Biological Activity

Targets :	Apoptosis
Pathways:	Bcl-2 Family

Description:

iMAC2 is the inhibitor of mitochondrial apoptosis-induced channel (MAC) with the IC₅₀ value of 28 nM[1]. MAC is a putative cytochrome c release channel involved in the intrinsic apoptotic pathway. MAC has been associated with oligomeric, not monomeric, Bax[2]. By blocking MAC and suppressing cytochrome c release, iMAC2 suppressed the onset of apoptotic markers [1]. In vitro: In cultured apoptotic FL5.12 cells, pre-treatment with iMAC2 resulted in a normal

volume and residual Annexin V/PI staining. iMAC2 reduced apoptosis by more than 50%. Pre-treatment with iMAC2 induced a significant protection at low micromolar levels (IC50 = 2.5 μ M). Pre-incubation with iMAC2 and iMAC3 essentially eliminated the release of cytochrome c (P < 0.0001) while nanomolar levels of iMAC2 completely blocked the current flow through MAC. iMAC2 inhibited release of cytochrome c by Bid-induced Bax activation with the IC50 values of 0.68 μ M [1].

Reference:

[1] Peixoto PM1, Ryu SY, Bombrun A, Antonsson B, Kinnally KW. *MAC inhibitors suppress mitochondrial apoptosis. Biochem J. 2009 Oct 12;423(3):381-7.*

[2] Dejean L M, Martinez-Caballero S, Guo L, et al. *Oligomeric Bax is a component of the putative cytochrome c release channel MAC, mitochondrial apoptosis-induced channel[J]. Molecular biology of the cell, 2005, 16(5): 2424-2432.*

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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