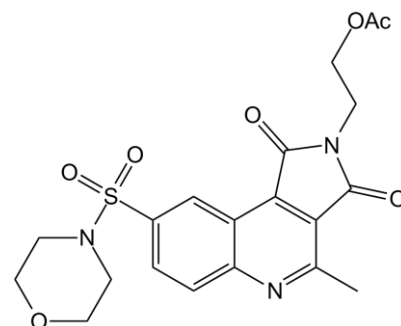


Product Data Sheet

Chemical Properties

Product Name:	Ivachtin
Cas No.:	745046-84-8
M.Wt:	447.46
Formula:	C ₂₀ H ₂₁ N ₃ O ₇ S
Chemical Name:	2-(4-methyl-8-morpholin-4-ylsulfonyl-1,3-dioxopyrrolo[3,4-c]quinolin-2-yl)ethyl acetate
Canonical SMILES:	<chem>CC1=C2C(=C3C=C(C=CC3=N1)S(=O)(=O)N4CCOCC4)C(=O)N(C2=O)CCOC(=O)C</chem>
Solubility:	Limited solubility
Storage:	Desiccate at 4°C
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:	Caspase

Description:

Ivachtin is a potent inhibitor of caspase-3 with IC₅₀ value of 23 nM [1]. Caspase-3 is a member of the cysteine-aspartic acid protease family and interacts with caspase-8 and caspase-9. Sequential activation of caspases plays an important role in cell apoptosis. Ivachtin is a potent and reversible inhibitor of caspase-3 in a noncompetitive way. Ivachtin was the most potent inhibitor against caspase-3, but the selectivity versus the remaining caspases

was modest. In human Jurkat T cells treated with 10 μ M staurosporin, Ivachtin protected cells in a higher level, which suggested that Ivachtin had a good cell permeability and antiapoptotic activity [1].

Reference:

[1]. Kravchenko DV, Kuzovkova YA, Kysil VM, et al. Synthesis and structure-activity relationship of 4-substituted 2-(2-acetyloxyethyl)-8-(morpholine-4-sulfonyl)pyrrolo[3,4-c]quinoline-1,3-diones as potent caspase-3 inhibitors. *J Med Chem*, 2005, 48(11): 3680-3683.

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. Short-term 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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