

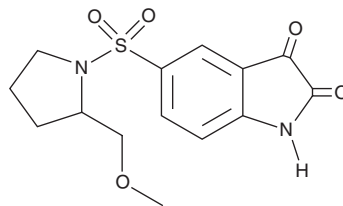
PRODUCT INFORMATION



Caspase-3/7 Inhibitor I

Item No. 14464

CAS Registry No.: 1110670-49-9
Formal Name: 5-[[2-(methoxymethyl)-1-pyrrolidinyl]sulfonyl]-1H-indole-2,3-dione
MF: C₁₄H₁₆N₂O₅S
FW: 324.4
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Caspase-3/7 inhibitor I is supplied as a crystalline solid. A stock solution may be made by dissolving the caspase-3/7 inhibitor I in the solvent of choice, which should be purged with an inert gas. Caspase-3/7 inhibitor I is soluble in organic solvents such as DMSO and methanol. The solubility of caspase-3/7 inhibitor I in these solvents is approximately 50 and 10 mg/ml, respectively.

Description

Caspase-3/7 inhibitor I is a potent, reversible, isatin sulfonamide-based inhibitor of caspase-3 ($K_i(\text{app}) = 60 \text{ nM}$; $\text{IC}_{50} = 120 \text{ nM}$) and caspase-7 ($K_i(\text{app}) = 170 \text{ nM}$).¹ It is a weaker inhibitor of caspase-9 ($K_i(\text{app}) = 3.1 \text{ }\mu\text{M}$) and caspase-1, caspase-2, caspase-4, caspase-6, and caspase-8 ($K_i(\text{app})\text{s} \geq 25 \text{ }\mu\text{M}$).^{1,2} Caspase-3/7 inhibitor I inhibits apoptosis in camptothecin-treated Jurkat cells ($\text{IC}_{50} = \sim 50 \text{ }\mu\text{M}$) and in chondrocytes (44% inhibition at $10 \text{ }\mu\text{M}$ and 98% inhibition at $50 \text{ }\mu\text{M}$).² The basis for the unique selectivity of this compound for caspases 3 and 7 involves the recognition of three distinct hydrophobic residues in the S2 pocket surrounding the catalytic cysteine residue.¹

References

1. Lee, D., Long, S.A., Adams, J.L., et al. Potent and selective nonpeptide inhibitors of caspases 3 and 7 inhibit apoptosis and maintain cell functionality. *J. Biol. Chem.* **275**(21), 16007-16014 (2000).
2. Lee, D., Long, S.A., Murray, J.H., et al. Potent and selective nonpeptide inhibitors of caspases 3 and 7. *J. Med. Chem.* **44**(12), 2015-2026 (2001).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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