

Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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PRODUCT INFORMATION



Akt Inhibitor XI

Item No. 18604

CAS Registry No.:	902779-59-3
Formal Name:	(SP-4-3)-dichloro[(2Z)-2-[(4-oxo-
	4H-1-benzopyran-3-yl)methylene]
	hydrazinecarbothioamide-кN ² ,кS]-copper
Synonym:	FPA-124
MF:	C ₁₁ H ₉ Cl ₂ CuN ₃ O ₂ S
FW:	381.7
Purity:	≥95%
Stability:	≥2 years at -20°C
Supplied as:	A crystalline solid
UV/Vis.:	λ _{max} : 273, 308 nm



Laboratory Procedures

For long term storage, we suggest that Akt inhibitor XI be stored as supplied at -20°C. It should be stable for at least two years.

Akt inhibitor XI is supplied as a crystalline solid. A stock solution may be made by dissolving the Akt inhibitor XI in the solvent of choice. Akt inhibitor XI is soluble in the organic solvent DMSO, which should be purged with an inert gas. The solubility of Akt inhibitor XI in DMSO is approximately 0.1 mg/ml.

Description

The kinase Akt (also known as protein kinase B or PKB) modulates cell proliferation, metabolism, and survival, as well as angiogenesis.^{1,2} Akt inhibitor XI is a cell-permeable, copper-containing 3-formylchromone derivative that inhibits Akt in an array of cancer cells ($IC_{50}s = 10-34 \ \mu M$).³ It also causes NF- κB inactivation in an orthotopic pancreatic tumor model using COLO 357 cells.³ Molecular modeling indicates that this inhibitor interacts with the pleckstrin homology and kinase domains of Akt. Akt inhibitor XI is commonly used in the range of 1-20 μ M to assess the role of Akt in cellular responses.⁴⁻⁶

References

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- 3. Barve, V., Ahmed, F., Adsule, S., et al. Synthesis, molecular characterization, and biological activity of novel synthetic derivatives of chromen-4-one in human cancer cells. J. Med. Chem. 49(13), 3800-3808 (2006).
- 4. Frampton, G., Invernizzi, P., Bernuzzi, F., et al. Interleukin-6-driven progranulin expression increases cholangiocarcinoma growth by an Akt-dependent mechanism. Gut 61(2), 268-277 (2012).
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- 6. Zareen, N., Biswas, S.C., and Greene, L.A. A feed-forward loop involving Trib3, Akt and FoxO mediates death of NGF-deprived neurons. Cell Death Differ. 20(12), 1719-1730 (2013).

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SAFFTY DATA

al 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

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