

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



**KP372-1** 

Item No. 17808

CAS Registry No.: 1374996-60-7

Formal Name: 6H-indeno[1,2-ε]tetrazolo[1,5-b]

[1,2,4]triazin-6-one, compd. with 10H-indeno $[2,1-\varepsilon]$ tetrazolo[1,5-b]

[1,2,4]triazin-10-one (1:1)

MF:  $C_{10}H_4N_6O \bullet C_{10}H_4N_6O$ 

FW: 224.2

**Purity:** ≥95% (sum of isomers) UV/Vis.:  $\lambda_{\text{max}}$ : 218, 267 nm Supplied as: A crystalline solid

-20°C Storage: Stability: ≥2 years

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

### **Laboratory Procedures**

KP372-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the KP372-1 in the solvent of choice, which should be purged with an inert gas. KP372-1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of KP372-1 in these solvents is approximately 20 mg/ml. KP372-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, KP372-1

should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. KP372-1 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

KP372-1 is a specific Akt inhibitor that demonstrates at least 10-fold selectivity against a panel of additional kinase targets, including CDK1, ERK1, GSK3β, LCK, MEK1, PKA, PKC, and S6K. 1.2 By blocking Akt signaling, KP372-1 has been shown to inhibit proliferation and to induce apoptosis of thyroid cancer cells with an IC<sub>50</sub> value of 30-60 nM in vitro.<sup>2</sup> In acute myelogenous leukemia cells, KP372-1 is reported to inhibit the kinase activity of Akt, PDK1, and FLT3, decreasing the colony-forming ability of these cells with an IC<sub>50</sub> value less than 200 nM.<sup>1</sup>

#### References

- 1. Zeng, Z., Samudio, I.J., Zhang, W., et al. Simultaneous inhibition of PDK1/AKT and Fms-like tyrosine kinase 3 signaling by a small-molecule KP372-1 induces mitochondrial dysfunction and apoptosis in acute myelogenous leukemia. Cancer Res. 66(7), 3737-3746 (2006).
- 2. Mandal, M., Kim, S., Younes, M.N., et al. The Akt inhibitor KP372-1 suppresses Akt activity and cell proliferation and induces apoptosis in thyroid cancer cells. Br. J. Cancer 92(10), 1899-1905 (2005).

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

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

subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information Buyer agrees to purchase the material can be found on our website.

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