

Product Data Sheet

Product Name: AO-365/43472821

Cat. No.: GC81309

Chemical Properties

Cas. No. 1081122-55-5

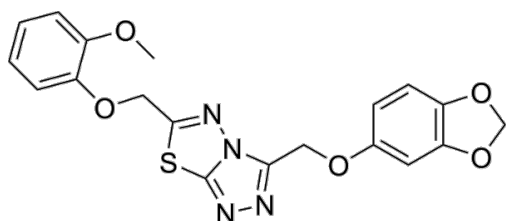
Formula $C_{19}H_{16}N_4O_5S$ M.Wt 412.42

Solubility DMSO: 25 mg/mL (60.62 mM); ultrasonic and warming and heat to 60°C) Storage Store at 4°C, away from moisture

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.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

AO-365/43472821 is a selective, brain-penetrant Dual-specificity tyrosine phosphorylation-regulated kinase 1A (DYRK1A) inhibitor ($IC_{50} = 0.29 \mu M$) and shows a significant inhibitory effect on (CDC-like kinase 1) CLK1 ($IC_{50} = 0.08 \mu M$). AO-365/43472821 could protect the human neuroblastoma cell line SH-SY5Y from Okadaic acid (OA)-induced injury. AO-365/43472821 decreased tau (pSer396)/tau and A β 1-42 protein expression. AO-365/43472821 can be used for the study of Alzheimer's disease [1].

Caution: Product has not been fully validated for medical applications. For research use only.

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In Vitro, AO-365/43472821 (Compound Y16-5) (1 μ M, 48 h) significantly protects SH-SY5Y cells from OA-induced damage and improves cell survival^[1]. AO-365/43472821 (1-10 μ M) significantly reduces the tau (pSer 396)/tau level in SH-SY5Y cells in a concentration-dependent manner, and also reduces the expression of A β 1-42 protein^[1]. AO-365/43472821 (48 h) shows a CC50 greater than 100 μ M in both SH-SY5Y and HL-7702 cells, indicating no cytotoxicity^[1].

References:

[1]. Si X, et al. Computer-aided discovery of triazolothiadiazoles as DYRK1A-targeted neuroprotective agents. RSC Med Chem. 2025 Jul 14.

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