



LKT Laboratories, Inc.

AR-A014418

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Product Information

Product ID A6800

CAS No. 487021-52-3

Chemical Name

Synonym GSK-3B Inhibitor VIII

Formula $C_{12}H_{12}N_4O_4S$

Formula Wt. 308.31

Melting Point

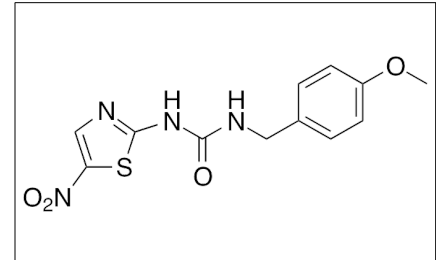
Purity $\geq 98\%$

Solubility DMSO Solubility:
61 mg/mL (197.85 mM)

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description AR-A014418 is an inhibitor of GSK-3B that exhibits anticancer, analgesic, cognition enhancing, neuroprotective, and anti-inflammatory activities. AR-A014418 decreases cell viability and downregulates expression of splicing factors, Bcl-2, Bcl-xl, survivin, and MCL-1 in glioma cells. In models of neuropathic pain, AR-A014418 inhibits thermal hyperalgesia and mechanical allodynia, potentially through suppressing expression of glutamate transporter GLT-1. This compound also inhibits the development of learning and memory deficits in animal models of diabetes. In spinal cord injury models, AR-A014418 prevents mitochondrial apoptosis and decreases levels of pro-inflammatory cytokines.



Bulk quantities available upon request

Product ID	Size
A6800	1 mg
A6800	5 mg
A6800	10 mg
A6800	25 mg

References Yadav AK, Vashishta V, Joshi N, et al. AR-A 014418 Used against GSK3beta Downregulates Expression of hnRNP A1 and SF2/ASF Splicing Factors. *J Oncol.* 2014;2014:695325. PMID: 24550987.

Weng HR, Gao M, Maixner DW. Glycogen synthase kinase 3 beta regulates glial glutamate transporter protein expression in the spinal dorsal horn in rats with neuropathic pain. *Exp Neurol.* 2014 Feb;252:18-27. PMID: 24275526.

King MR, Anderson NJ, Guernsey LS, et al. Glycogen synthase kinase-3 inhibition prevents learning deficits in diabetic mice. *J Neurosci Res.* 2013 Apr;91(4):506-14. PMID: 23362012.

Tunçdemir M, Yıldırım A, Karaoğlan A, et al. AR-A014418 as a glycogen synthase kinase-3 inhibitor: anti-apoptotic and therapeutic potential in experimental spinal cord injury. *Neurocirugia (Astur).* 2013 Jan-Feb;24(1):22-32. PMID: 23116585.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.