



LKT Laboratories, Inc.

SRT1720 Hydrochloride

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID S7868

CAS No. 1001645-58-4

Chemical Name

Synonym SRT-1720 HCl salt

Formula $C_{25}H_{23}N_7OS \cdot HCl$

Formula Wt. 506.02

Melting Point

Purity $\geq 98\%$

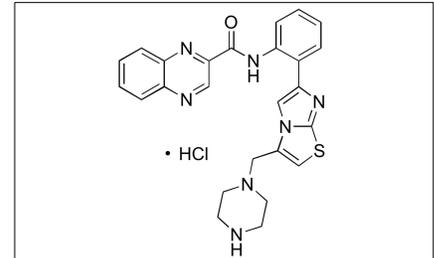
Solubility DMSO 38 mg/mL (75.09 mM)
Water Insoluble
Ethanol Insoluble

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

Ship Temp Ambient

Description

SRT1720 is an inhibitor of sirtuin 3 (SIRT3) and activator of sirtuin 1 (SIRT1); sirtuins are considered class III histone deacetylases (HDACs). SRT1720 exhibits nephroprotective, anti-aging, anti-inflammatory, and pro-angiogenic activities. SRT1720 binds the acetyl-Lys site on sirtuins rather than the NAD⁺ site. In animal models of kidney ischemia/reperfusion injury, SRT1720 improves renal tubular pathology and overall renal function. In animal models fed high fat diets, SRT1720 delays the onset of metabolic diseases and decreases levels of pro-inflammatory cytokines, extending animal lifespan. In animal models of macular degeneration, this compound suppresses activation of NF- κ B and release of IL-6, IL-8, and MMP-9, decreasing amyloid- β (A β)-induced retinal pigment epithelial barrier disruption. Additionally, SRT1720 increases VEGF secretion and promotes migration and metastasis of breast cancer cells in vitro and in vivo.



Bulk quantities available upon request

Product ID	Size
S7868	1 mg
S7868	5 mg
S7868	25 mg
S7868	100 mg

References Mitchell SJ, Martin-Montalvo A, Mercken EM, et al. The SIRT1 Activator SRT1720 Extends Lifespan and Improves Health of Mice Fed a Standard Diet. *Cell Rep.* 2014 Mar 13;6(5):836-43. PMID: 24582957.

Cao L, Liu C, Wang F, et al. SIRT1 negatively regulates amyloid-beta-induced inflammation via the NF- κ B pathway. *Braz J Med Biol Res.* 2013 Aug;46(8):659-69. PMID: 24036938.

Nguyen GT, Schaefer S, Gertz M, et al. Structures of human sirtuin 3 complexes with ADP-ribose and with carba-NAD⁺ and SRT1720: binding details and inhibition mechanism. *Acta Crystallogr D Biol Crystallogr.* 2013 Aug;69(Pt 8):1423-32. PMID: 23897466.

Fan H, Yang HC, You L, et al. The histone deacetylase, SIRT1, contributes to the resistance of young mice to ischemia/reperfusion-induced acute kidney injury. *Kidney Int.* 2013 Mar;83(3):404-13. PMID: 23302720.

Suzuki K, Hayashi R, Ichikawa T, et al. SRT1720, a SIRT1 activator, promotes tumor cell migration, and lung metastasis of breast cancer in mice. *Oncol Rep.* 2012 Jun;27(6):1726-32. PMID: 22470132.

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