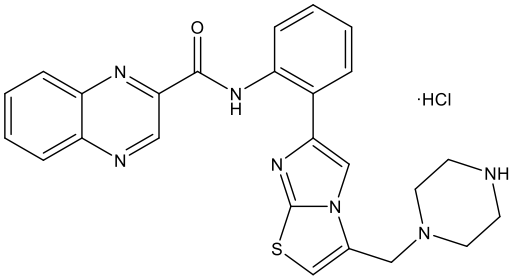
Catalog # 10-4628

SRT1720 HCl

CAS# 1001645-58-4

N-[2-[3-(Piperazin-1-ylmethyl)imidazo[2,1-b][1,3]thiazol-6-yl]phenyl]quinoxaline-2-carboxamide hydrochloride

Lot # FBS2100



SRT1720 is a SIRT1 activator ($EC_{1.5}$ = 0.16 µM, max activation = 781%).[1] It reduced glucose levels and hyperinsulinemia in DIO, *Lep$^{ob/ob}$* mice and Zucker *fa/fa* rats. SRT1720 enhanced endurance running and protected against diet-induced obesity and insulin resistance via enhancement of oxidative metabolism in skeletal muscle, liver, and brown adipose tissue.[2] It induced mitochondrial biogenesis in oxidant-induced renal proximal tube cell injury.[3] SRT1720 repressed circadian clock gene expression and decreased H3 K9/K14 acetylation in a time-specific manner.[4] It attenuated angiotensin II-induced atherosclerosis by inhibiting the vascular inflammatory response.[5]

1) Milne *et al*. (2007), *Small molecule activators of SIRT1 as therapeutics for the treatment of type 2 diabetes*; Nature **450** 712
2) Feige *et al*. (2008), *Specific SIRT1 activation mimics low energy levels and protects against diet-induced metabolic disorders by enhancing fat oxidation*; Cell Metab. **8** 347
3) Funk *et al*. (2010), *SRT1720 induces mitochondrial biogenesis and rescues mitochondrial function after oxidant injury in renal proximal tubule cells*; J. Pharmacol. Exp. Ther. **333** 593
4) Bellet *et al*. (2013), *Pharmacological modulation of circadian rhythms by synthetic activators of the deacetylase SIRT1*; Proc. Natl. Acad. Sci. USA **110** 3333
5) Chen *et al*. (2015), *The Sirt1 activator SRT1720 attenuates angiotensin II-induced atherosclerosis in apoE-/- mice through inhibiting vascular inflammatory response*; Biochem. Biophys. Res. Commun. **465** 732

PHYSICAL DATA

Molecular Weight:	505.15
Molecular Formula:	$C_{25}H_{23}N_7OS \cdot HCl$
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462
www.focusbiomolecules.com