

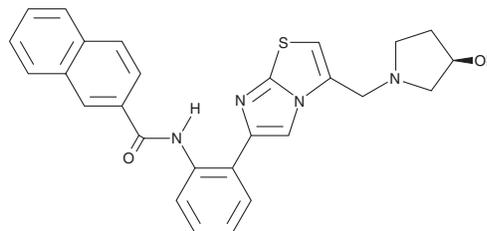
# PRODUCT INFORMATION



## SRT 2183

Item No. 43526

**CAS Registry No.:** 1001908-89-9  
**Formal Name:** N-[2-[3-[[[(3R)-3-hydroxy-1-pyrrolidinyl]methyl]imidazo[2,1-b]thiazol-6-yl]phenyl]-2-naphthalenecarboxamide  
**MF:** C<sub>27</sub>H<sub>24</sub>N<sub>4</sub>O<sub>2</sub>S  
**FW:** 468.6  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

SRT 2183 is supplied as a solid. A stock solution may be made by dissolving the SRT 2183 in the solvent of choice, which should be purged with an inert gas. SRT 2183 is soluble (≥10 mg/ml) in DMSO.

### Description

SRT 2183 is an activator of sirtuin 1 (SIRT1; EC<sub>50</sub> = 0.36 μM).<sup>1</sup> However, it was found only to bind fluorophore-labeled SIRT1 and also inhibits 14 targets, including cannabinoid receptor 1 (CB<sub>1</sub>), adenosine receptor 3 (A<sub>3</sub>), and phosphodiesterase 5 (PDE5), in a panel of 100 receptors, enzymes, ion channels, and transporters at 10 μM.<sup>2</sup> SRT 2183 (2 μM) inhibits RANKL-induced osteoclastogenesis in primary mouse bone marrow-derived macrophages (BMDMs).<sup>3</sup> It inhibits apoptosis induced by hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) in primary mouse renal medullary interstitial cells when used at a concentration of 5 μM.<sup>4</sup>

### References

1. Milne, J.C., Lambert, P.D., Schenk, S., *et al.* Small molecule activators of SIRT1 as therapeutics for the treatment of type 2 diabetes. *Nature* **450(7170)**, 712-716 (2007).
2. Pacholec, M., Bleasdale, J.E., Chrunchuk, B., *et al.* SRT1720, SRT2183, SRT1460, and resveratrol are not direct activators of SIRT1. *J. Biol. Chem.* **285(11)**, 8340-8351 (2010).
3. Gurt, I., Artsi, H., Cohen-Kfir, E., *et al.* The Sirt1 activators SRT2183 and SRT3025 Inhibit RANKL-induced osteoclastogenesis in bone marrow-derived macrophages and down-regulate Sirt3 in Sirt1 null cells. *PLoS One* **10(7)**, e0134391 (2015).
4. He, W., Wang, Y., Zhang, M.Z., *et al.* Sirt1 activation protects the mouse renal medulla from oxidative injury. *J. Clin. Invest.* **120(4)**, 1056-1068 (2010).

#### WARNING

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

#### SAFETY DATA

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.

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