# **PRODUCT** INFORMATION



**SLU-PP-332** 

Item No. 41719

CAS Registry No.:	303760-60-3	
Formal Name:	4-hydroxy-benzoic acid,	$\sim$ $\sim$
	2-(2-naphthalenylmethylene)	
	hydrazide	
MF:	$C_{18}H_{14}N_{2}O_{2}$	
FW:	290.3	
Purity:	≥98%	
Supplied as:	A solid	~ 0н
Storage:	-20°C	
Stability:	≥4 years	

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

# Laboratory Procedures

SLU-PP-332 is supplied as a solid. A stock solution may be made by dissolving the SLU-PP-332 in the solvent of choice, which should be purged with an inert gas. SLU-PP-332 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

# Description

SLU-PP-332 is an agonist of estrogen-related receptor  $\alpha$  (ERR $\alpha$ ), ERR $\beta$ , and ERR $\gamma$ .<sup>1</sup> It induces reporter gene expression in HEK293 cells expressing ERR $\alpha$ , ERR $\beta$ , or ERR $\gamma$  (EC<sub>50</sub>s = 98, 230, and 430 nM, respectively). SLU-PP-332 (10  $\mu$ M) increases mitochondrial respiration in C2C12 skeletal myoblasts. It increases the number of quadricep oxidative muscle fibers and quadricep cytochrome C, myosin IIA, and mitochondrial DNA (mtDNA) levels, as well as increases running distance, length of time running, and grip strength, in mice when administered at a dose of 50 mg/kg twice per day. SLU-PP-332 (25 mg/kg per day for eight weeks) inhibits age-related increases in albuminuria and kidney weights and age-related decreases in kidney podocin levels in a mouse model of age-related kidney dysfunction.<sup>2</sup> It decreases body weight and fat mass, blood levels of total cholesterol, HDL, and triglycerides, and adipocyte size in a mouse model of high-fat diet-induced obesity when administered at a dose of 50 mg/kg twice per day.<sup>3</sup> It reduces blood glucose levels in a glucose tolerance test in the same animals at the same dose.

# References

- 1. Billon, C., Sitaula, S., Banerjee, S., et al. Synthetic ERR $\alpha/\beta/\gamma$  agonist induces an ERR $\alpha$ -dependent acute aerobic exercise response and enhances exercise capacity. ACS Chem. Biol. 18(4), 756-771 (2023).
- 2. Wang, X.X., Myakala, K., Libby, A.B., et al. Estrogen-related receptor agonism reverses mitochondrial dysfunction and inflammation in the aging kidney. Am. J. Pathol. 193(12), 1969-1987 (2023).
- 3. Billon, C., Schoepke, E., Avdagic, A., et al. A synthetic ERR agonist alleviates metabolic syndrome. J. Pharmacol. Exp. Ther. 388(2), 232-240 (2024).

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

## SAFFTY 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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