

PRODUCT INFORMATION



SHU9119 (trifluoroacetate salt)

Item No. 24152

CAS Registry No.: 168482-23-3
Formal Name: N-acetyl-L-norleucyl-L- α -aspartyl-L-histidyl-3-(2-naphthalenyl)-D-alanyl-L-arginyl-L-tryptophyl-L-lysynamide, (2 \rightarrow 7)-lactam, trifluoroacetate salt

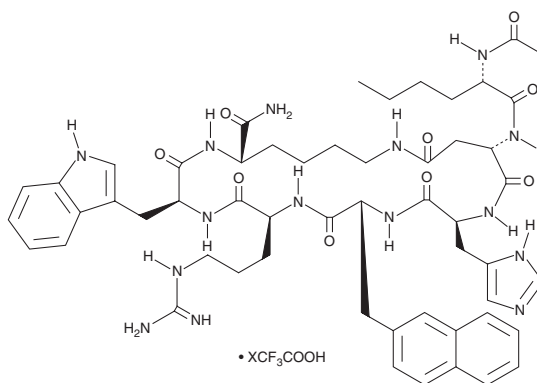
MF: C₅₄H₇₁N₁₅O₉ • XCF₃COOH
FW: 1,074.2

Purity: \geq 95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

SHU9119 (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the SHU9119 (trifluoroacetate salt) in water. The solubility of SHU9119 (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

SHU9119 is an agonist of melanocortin receptor 1 (MC1R) and antagonist of MC4R (IC₅₀s = 1.2 and 2.9 nM, respectively, for displacement of melanocortin).¹ It induces cAMP formation in HEK293 cells expressing human MC1R (EC₅₀ = 1.11 nM), but inhibits cAMP formation in cells expressing human MC4R.¹ In rats, SHU9119 (24 nmol, i.c.v. per day for seven days) increases food intake, body weight, fat mass, and lean mass, with concomitant increases in blood glucose, insulin, and leptin levels via disrupted melanocortin signaling.² Similarly, mice treated with SHU9119 (5 nmol/day, i.c.v.) exhibit food intake-independent increases in body weight and fat mass consequent to MC4R inhibition and subsequent brown adipose tissue dysfunction.³

References

1. Yang, Y., Chen, M., Lai, Y., *et al.* Molecular determinants of human melanocortin-4 receptor responsible for antagonist SHU9119 selective activity. *J. Biol. Chem.* **277**(23), 20328-20335 (2002).
2. Nogueiras, R., Wiedmer, P., Perez-Tilve, D., *et al.* The central melanocortin system directly controls peripheral lipid metabolism. *J. Clin. Invest.* **117**(11), 3475-3488 (2007).
3. Kooijman, S., Boon, M.R., Parlevliet, E.T., *et al.* Inhibition of the central melanocortin system decreases brown adipose tissue activity. *J. Lipid Res.* **55**(10), 2022-2032 (2014).

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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