

## Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Lieferung & Zahlungsart siehe unsere Liefer- und Versandbedingungen

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

#### SZABO-SCANDIC HandelsgmbH

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# PRODUCT INFORMATION



∠NH₂

HN 🗸

N

#### HS-024 (trifluoroacetate salt)

Item No. 41557

Formal Name: Synonyms:	cyclic (1 $\rightarrow$ 9)-disulfide, N-acetyl- L-cysteinyl-L-norleucyl-L-arginyl- L-histidyl-3-(2-naphthalenyl)- D-alanyl-L-tryptophylglycyl-L- cysteinamide, trifluoroacetate salt Ac-Cys-Nle-Arg-His-D-Nal-Arg- Trp-Gly-Cys-NH <sub>2</sub> , cyclic [AcCys <sup>3</sup> ,Nle <sup>4</sup> ,Arg <sup>5</sup> ,D- Nal <sup>7</sup> ,Cys-NH <sub>2</sub> <sup>11</sup> ] $\alpha$ -MSH-(3-11)	$H_{2}N \xrightarrow{H}_{NH} \xrightarrow{H}_{NH} \xrightarrow{H}_{NH} \xrightarrow{O}_{H} \xrightarrow{O}_{H} \xrightarrow{H}_{NH} \xrightarrow{O}_{H} \xrightarrow{O}_{H}$
MF:	C <sub>58</sub> H <sub>79</sub> N <sub>19</sub> O <sub>10</sub> S <sub>2</sub> • XCF <sub>3</sub> COOH	
FW:	1,266.5	
Purity:	≥98%	∫ N H S'S'
Supplied as:	A solid	O NH <sub>2</sub>
Storage:	-20°C	• XCF <sub>3</sub> COOH
Stability:	≥4 years	201300011

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

#### Laboratory Procedures

HS-024 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the HS-024 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. HS-024 (trifluoroacetate salt) is soluble ( $\geq$ 10 mg/ml) in ethanol and DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of HS-024 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. HS-024 (trifluoroacetate salt) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

#### Description

HS-024 is a cyclic peptide antagonist of melanocortin receptor 4 (MC4R;  $K_i = 0.29$  nM).<sup>1</sup> It is selective for MC4R over MC1R, MC3R, and MC5R (K s = 18.6, 5.45, and 3.29 nM, respectively). HS-024 (100 nM) inhibits cAMP accumulation induced by α-melanocyte-stimulating hormone (α-MSH; Item No. 29923) in COS-1 cells expressing human MC1R, MC3R, MC4R, or MC5R. It increases food intake in rats when administered at doses of 0.3, 1, or 3 nmol/animal. Intrathecal administration of HS-024 (1.5 nmol/animal) inhibits mechanical allodynia at 30 minutes post-injection in a rat model of spinal nerve ligation-induced neuropathic pain.<sup>2</sup> It reduces stress-induced reinstatement of nicotine seeking in the foot shock test in rats.<sup>3</sup>

#### References

- 1. Kask, A., Mutulis, F., Muceniece, R., et al. Discovery of a novel superpotent and selective melanocortin-4 receptor antagonist (HS024): Evaluation in vitro and in vivo. Endocrinology 139(12), 5006-5014 (1998).
- 2. Bertorelli, R., Fredduzzi, S., Tarozzo, G., et al. Endogenous and exogenous melanocortin antagonists induce anti-allodynic effects in a model of rat neuropathic pain. Behav. Brain Res. 157(1), 55-62 (2005).
- 3 Qi, X., Yamada, H., Corrie, L.W., et al. A critical role for the melanocortin 4 receptor in stress-induced relapse to nicotine seeking in rats. Addict. Biol. 20(2), 324-335 (2015).

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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