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Produktinformation



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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



FSL-1 (trifluoroacetate salt)

Item No. 24220

Formal Name: S-[2,3-bis[(1-oxohexadecyl)oxy]propyl]-L-cysteinylglycyl-L- α -aspartyl-L-prolyl-L-lysyl-L-histidyl-L-prolyl-L-lysyl-L-seryl-L-phenylalanine, trifluoroacetate salt

MF: C₈₄H₁₄₀N₁₄O₁₈S • XCF₃COOH

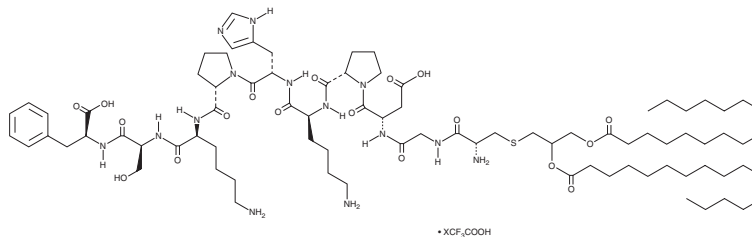
FW: 1,666.2

Purity: $\geq 95\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 2 years



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

Laboratory Procedures

FSL-1 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the FSL-1 (trifluoroacetate salt) in water. The solubility of FSL-1 (trifluoroacetate salt) in water is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

FSL-1 is a synthetic lipopeptide agonist of toll-like receptor 2 (TLR2) and TLR6 heterodimers (TLR2/TLR6).^{1,2} In HEK293 cells transfected with human TLR2 and TLR6 but not TLR6 alone, FSL-1 increases NF- κ B activity by 4- and 8-fold when used at concentrations of 0.1 and 1 nM, respectively.¹ It induces the expression of the cytokines CCL20, IL-8, IL-1 β , and TNF- α in human monocytic THP-1 cells and, to a lesser extent, in TLR10 knockdown cells when used at a concentration of 100 ng/ml.³ FSL-1 (0.5-50 μ g/ml), in combination with IFN- γ , dose-dependently increases the percentage of DM13 and VMM1 melanoma cells expressing the chemokine CXCL10 with a maximal increase of approximately 50%.⁴ In rats, FSL-1 (100 μ g/kg, i.p.) induces fever and increases plasma levels of IL-6 and TNF- α by greater than 90-fold.⁵ FSL-1 (10-1,000 μ g/kg, i.p.) also dose-dependently reduces home cage locomotor activity and both food and water consumption with maximal reductions of ten grams per 12 hours.

References

1. Okusawa, T., Fujita, M., Nakamura, J., *et al.* Relationship between structures and biological activities of mycoplasma diacylated lipopeptides and their recognition by toll-like receptors 2 and 6. *Infect. Immun.* **72(3)**, 1657-1665 (2004).
2. Farhat, K., Riekenberg, S., Heine, H., *et al.* Heterodimerization of TLR2 with TLR1 or TLR6 expands the ligand spectrum but does not lead to differential signaling. *J. Leukoc. Biol.* **83(3)**, 692-701 (2008).
3. Le, H.V. and Kim, J.Y. Stable Toll-Like Receptor 10 Knockdown in THP-1 Cells Reduces TLR-Ligand-Induced Proinflammatory Cytokine Expression. *Int. J. Mol. Sci.* **17(6)**, E859 (2016).
4. Mauldin, I.S., Wang, E., Deacon, D.H., *et al.* TLR2/6 agonists and interferon-gamma induce human melanoma cells to produce CXCL10. *Int. J. Cancer* **137(6)**, 1386-1396 (2015).
5. Hübschle, T., Mütze, J., Mühlradt, P.F., *et al.* Pyrexia, anorexia, adipsia, and depressed motor activity in rats during systemic inflammation induced by the Toll-like receptors-2 and -6 agonists MALP-2 and FSL-1. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* **290(1)**, R180-R187 (2006).

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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