

PRODUCT INFORMATION



(R)-Macrophage-activating Lipopeptide 2 (trifluoroacetate salt)

Item No. 45758

Formal Name: S-[(2R)-2,3-bis[(1-oxohexadecyl)oxy]propyl]-L-cysteinylglycyl-L-asparaginyl-L-asparaginyl-L- α -aspartyl-L- α -glutamyl-L-seryl-L-asparaginyl-L-isoleucyl-L-seryl-L-phenylalanyl-L-lysyl-L- α -glutamyl-L-lysine, trifluoroacetate salt

Synonyms: Macrophage-activating Lipopeptide 2 kDa, Macrophage Stimulatory Lipopeptide 2, R-MALP-2, Pam2CGNNDENISFKEK

Peptide Sequence: (R)-(Bispalmitoyloxypropyl)-CGNNDENISFKEK-OH

MF: $C_{99}H_{167}N_{19}O_{30}S \cdot XCF_3COOH$

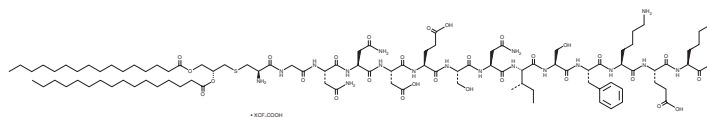
FW: 2,135.6

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years



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

Laboratory Procedures

(R)-Macrophage-activating lipopeptide 2 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the (R)-macrophage-activating lipopeptide 2 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. (R)-Macrophage-activating lipopeptide 2 (trifluoroacetate salt) is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

(R)-Macrophage-activating lipopeptide 2 ((R)-MALP-2) is an agonist of toll-like receptor 2 (TLR2) and TLR6 and a synthetic lipopeptide derivative of *M. fermentans* MALP-2 that contains palmitic acid (Item Nos. 10006627 | 43561) at both acyl chain positions on the glycerol moiety.^{1,2} It is selective for TLR2/6 over TLR2/1 (EC_{50} s = <1 and 10 ng/ml, respectively, in reporter assays).¹ (R)-MALP-2 induces nitric oxide (NO), TNF- α , and IL-6 production in C3H/HeJ macrophages and protects galactosamine-sensitized C57BL/10ScCr mice, which lack functional TLR4, against lethal doses of TNF- α .^{2,3} It induces wound leukocyte infiltration and accelerates wound closure in obese diabetic mice.⁴

References

1. Omuetti, K.O., Beyer, J.M., Johnson, C.M., et al. *J. Biol. Chem.* **280**(44), 36616-36625 (2005).
2. Takeuchi, O., Kaufmann, A., Grote, K., et al. *J. Immunol.* **164**(2), 554-557 (2000).
3. Deiters, U., Gumenscheimer, M., Galanos, C., et al. *Infect. Immun.* **71**(8), 4456-4462 (2003).
4. Deiters, U., Barsig, J., Tawil, B., et al. *Exp. Dermatol.* **13**(12), 731-739 (2004).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM