

Product Information

Dhc-SKXXX

For Research Purposes only. Not for use in Humans



Product	L2001
Chemical name	S-[2,3-dihydroxy-(2RS)-propyl]-(R)-cysteinyl-(S)-seryl-(S)-lysyl-(S)-lysyl-(S)-lysyl-(S)-lysine x 3 CF ₃ COOH
Synonyms	Dhc-Ser-(Lys) ₄ x 3 TFA
CAS	Not available
MW / Formula	795.0 • 342.1 / C ₃₃ H ₆₆ N ₁₀ O ₁₀ S
Structure	<p>Bacterial - including mycoplasmal - lipoproteins are characterised by the unusual amino acid dihydroxypropylcysteine (Dhc) acylated by two or three fatty acids. Dhc-SKXXX is a peptide with the unusual amino acid Dhc. It represents a substructure and the peptide moiety of the TLR2 ligands Pam₃Cys-SKXXX and Pam₂Cys-SKXXX.</p>
Packaging Reconstitution Storage	<p>The peptide is provided as a lyophilised, colourless powder without any additives. It can be shipped at room temperature and should be stored at 4°C.</p> <p>Dhc-SKXXX can be reconstituted in endotoxin-free water (1 mg/ml stock solution). Through the use of either a homogeniser or sonicator, a homogenous solution or emulsion can be prepared. If you use an ultrasonic bath, take care of the vial labels.</p> <p>For further dilutions water, saline, buffer (pH ≤ 7.4) or media can be used. After reconstitution, the solution should be aliquoted and stored at or below -20°C. Repeated thawing and freezing should be avoided.</p>
Handling	<p>Good laboratory technique should be employed in the safe handling of any lipopeptide product. If you are not fully trained or are unaware of the hazards involved, do not use this compound!</p> <p>Caution: Do not take internally! Avoid contact by all modes of exposure. Wear appropriate laboratory attire including a lab coat, gloves, mask and safety glasses. Do not mouth pipette, inhale, ingest or allow to come into contact with open wounds. Wash thoroughly any area of the body which comes into contact with the product. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.</p> <p>This product is intended for research purposes by qualified personnel only. It is not intended for use in humans or as a diagnostic agent. EMC microcollections GmbH is not liable for any damages resulting from misuse or handling of this product.</p>
References	<p>K. Hantke, V. Braun (1973) Covalent binding of lipid to protein. Diglyceride and amide-linked fatty acid at the N-terminal end of the murein-lipoprotein of the <i>Escherichia coli</i> outer membrane. <i>Eur. J. Biochem.</i> 34, 284.</p> <p>A. O. Aliprantis, R. B. Yang, M. R. Mark, S. Suggett, B. Devaux, J. D. Radolf, G. P. Klimpel, P. Godowski, A. Zychlinsky (1999) Cell Activation and Apoptosis by Bacterial Lipoproteins Through Toll-like Receptor-2. <i>Science</i> 285, 736-739.</p> <p>O. Takeuchi, T. Kawai, P. F. Mühlradt, M. Morr, J. D. Radolf, A. Zychlinsky, K. Takeda, S. Akira (2001) Discrimination of bacterial lipoproteins by Toll-like receptor 6. <i>Int. Immunol.</i> 13, 933-940.</p> <p>U. Buwitt-Beckmann, H. Heine, K.-H. Wiesmüller, G. Jung, R. Brock, S. Akira, A. J. Ulmer (2005). Toll-like receptor 6-independent signaling by diacylated lipopeptides. <i>Eur. J. Immunol.</i> 35, 282-289.</p> <p>U. Buwitt-Beckmann, H. Heine, K.-H. Wiesmüller, G. Jung, R. Brock, S. Akira, A. J. Ulmer (2006) TLR1- and TLR6-independent recognition of bacterial lipopeptides. <i>J. Biol. Chem.</i> 281, 9049-9057.</p> <p>K. O. Omuetti, J. M. Beyer, C. M. Johnson, E. A. Lyle, R. I. Tapping (2005) Domain exchange between human toll-like receptors 1 and 6 reveals a region required for lipopeptide discrimination. <i>J. Biol. Chem.</i> 280, 36616-36625.</p> <p>M. S. Jin et al. (2007) Crystal Structure of the TLR1-TLR2 Heterodimer Induced by Binding of a Tri-Acylated Lipopeptide. <i>Cell</i> 130, 1071.</p> <p>J. Y. Kang, X. Nan, M. S. Jin, S. J. Youn, Y. H. Ryu, S. Mah, S. H. Han, H. Lee, S. G. Paik, J. O. Lee (2009) Recognition of lipopeptide patterns by Toll-like receptor 2-Toll-like receptor 6 heterodimer. <i>Immunity</i> doi:10.1016/j.immuni.2009.09.018</p>