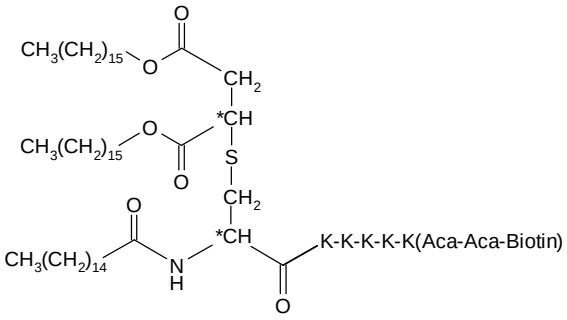
Product Information
Lipobiotin

For Research Purposes only. Not for use in Humans

Product	L2070
Chemical name	S-(1,2-dicarboxyhexadecyl)ethyl-N-palmitoyl-(*R*)-cysteinyl-(*S*)-lysyl-(*S*)-lysyl-(*S*)-lysyl-(*S*)-lysyl-(*S*)-lysine(biotinyl-ε-aminocaproyl-ε- aminocaproic acid) x 2 CF_3COOH
Synonyms	PHC-KKKKK(Biotin-Aca-Aca) PHC-$(Lys)_4$-Lys(Biotin-Aca-Aca) x 2 TFA
CAS	Not available
MW / Formula	2018 • 228,1 / $C_{107}H_{201}N_{15}O_{16}S_2$

Description



Lipobiotin is a selectively biotinylated analogue of PHC-SKKKK (product code L2032). Biotin is attached via spacer molecules to the side chain of the C-terminal lysine. The Biotin-avidin or -streptavidin interaction can be used for detection, labelling or immobilisation in many research applications. Lipobiotin is no ligand of TLR.
Lipobiotin was used in a novel, rapid and versatile method for the isolation of pathogen-containing organelles from primary cells. The compound was used to functionalize bacterial surfaces and allows the rapid immunomagnetic isolation of intact bacteria-containing compartments and apoptotic blebs which can be characterized by electron microscopy, western blot and mass spectrometry [1, 2]. The procedure facilitates the detailed molecular characterization of pathogen-containing phagosomes in low total cell number of macrophages and other host cells [1].

Packaging
Reconstitution
Storage

The lipobiotin is provided as a lyophilised, colourless powder without any additives. It can be shipped at room temperature and should be stored at 4°C.
Lipobiotin 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.
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.

Product citations

[1] C. Steinhäuser, U. Heigl, V. Tchikov, J. Schwarz, T. Gutsmann, K. Seeger, J. Brandenburg, J. Fritsch, J. Schroeder, K.-H. Wiesmüller, I. Rosenkrands, P. Walther, J. Pott, E. Krause, S. Ehlers, W. Schneider-Brachert, S. Schütze, N. Reiling (2013) Lipid-labeling facilitates a novel magnetic isolation procedure to characterize pathogen-containing phagosomes. Traffic 14(3), 321-336. doi: 10.1111/tra.12031.

[2] C. Steinhäuser, T. Dallenga, V. Tchikov, U. E. Schaible, S. Schütze, N. Reiling (2014) Immuno-magnetic isolation of pathogen-containing phagosomes and apoptotic blebs from primary phagocytes. Curr. Protoc. Immunol., In press