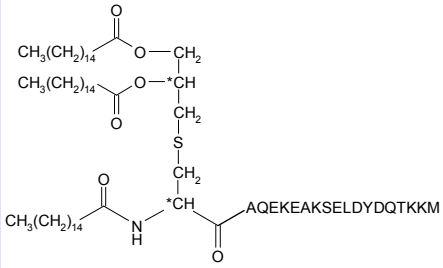
Product Information
Pam_3Cys-AQEKEAKSELDYDQTKKM

For Research Purposes only. Not for use in Humans

Product	L8020
Chemical name	N-Palmitoyl-S-[2,3-bis(palmitoyloxy)-(2*RS*)-propyl]-(*R*)-cysteinyl-AQEKEAKSELDYDQTKKM x 4 Lys
Derived from	*Bacillus cereus* spore germination protein D GerD
CAS	Not available
MW / Formula	3034 ● 584/ $C_{144}H_{249}N_{25}O_{40}S_2$

Description



Pam_3Cys-AQEKEAKSELDYDQTKKM represents the synthetic N-terminal lipohexadecapeptide of the *Bacillus cereus* spore germination protein D (GerD). Bacterial lipoproteins have no shared sequence homology but are characterised by the N-terminal unusual amino acid S-(2,3-dihydroxypropyl)-L-cysteine acylated by three fatty acids. The lipoamino acid Pam_3Cys is based on the structure of this naturally occurring amino acid.

Bacterial lipoproteins and their synthetic analogues are described to elicit cellular responses through TLR1/TLR2 heterodimers which involves downstream NF-κB activation and cytokine release.

Synthetic lipopeptides are valuable tools for basic research in innate and acquired immunity and also well known as potent immune adjuvants. Recently, also the interaction of lipopeptides with TLR10 has been described.

The crystal structure of the TLR1/TLR2 heterodimers with the synthetic ligand *R*-Pam_3Cys-SKKKK (*RR*-stereoisomer, product code L2048) has been elucidated.

Packaging
Reconstitution
Storage

The lipopeptide is provided as a lyophilised, colourless powder. Lysine is added to improve the solubility in water. It can be shipped at room temperature and should be stored at 4°C.

Pam_3Cys-AQEKEAKSELDYDQTKKM can be reconstituted in 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 pyrogen-free water, saline, buffer 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.

References

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