## Product Information MALP-2-DI-Cv5





Product L6055

**Chemical name** S-[2,3-bis(palmitoyloxy)-(2RS)-propyl]-(R)-cysteinyl-GNNDESNISFKEKDIK(Cy5)

Synonyms Pam<sub>2</sub>Cys-GNNDESNISFKEKDIK(Cy5)

CAS Not available

MW / Formula 2865 / C<sub>141</sub>H<sub>220</sub>N<sub>23</sub>O<sub>35</sub>S

Vial content 100 µg

**Description** 

 $\begin{array}{c} \mathsf{CH}_{\mathcal{F}}(\mathsf{CH}_{\mathcal{F}})_{14} & \mathsf{O} & \mathsf{CH}_{2} \\ \mathsf{CH}_{\mathcal{F}}(\mathsf{CH}_{\mathcal{F}})_{14} & \mathsf{O} & \mathsf{CH}_{2} \\ \mathsf{CH}_{\mathcal{F}} & \mathsf{CH}_{\mathcal{F}} \\ \mathsf{CH}_{2} & \mathsf{CH}_{2} \\ \mathsf{CH}_{2} & \mathsf{CH}_{2} \\ \mathsf{H}_{2}\mathsf{N} & \mathsf{CH}_{1} & \mathsf{G-N-N-D-E-S-N-I-S-F-K-E-K-D-I-K(Cy5)} \end{array}$ 

MALP-2-DI-Cy5 is a selectively labelled analogue of MALP-2-DI (product code L6050). It is labelled with cyanine5 carboxylic acid via the side chain of the C-terminal lysine. Cy5 has an excitation maximum of 646 nm and an emission maximum of 662 nm.

Lipopeptides are valuable tools for basic research in innate and acquired immunity. Like MALP-2 (Pam<sub>2</sub>Cys-GNNDESNISFKEK), the synthetic

lipopeptide MALP-2-DI represents the N-terminal sequence of the mature macrophage activating lipoprotein 404 isolated from mycoplasma. Diacylated Pam<sub>2</sub>Cys lipopeptides are described to interact with Toll-like receptor 2 and 6 on mammalian cells and showed high activity when tested for its capability to activate THP-1 cells to produce TNF- $\alpha$  and on HEK293 cells transfected with TLR2 and TLR6 to produce NF- $\kappa$ B. Due to its **improved physicochemical properties** compared to MALP-2, MALP-2-DI can be used without any additives or detergents. MALP-2-DI-Cy5 is manufactured in reproducible high quality.

Packaging Reconstitution Storage The lipopeptide is provided as a lyophilised, blue powder without any additives. It can be shipped at room temperature and should be stored at 4°C.

MALP-2-DI-Cy5 can be reconstituted in DMSO (10 mg/ml stock solution). It can be further diluted with endotoxin-free water. Through the use of a homogeniser and 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 or media can be used. Depending on the sensitivity of the *in vitro* assay, the recommended working concentration for specific stimulation of innate immunity via TLR2/TLR6 heterodimers is 10 - 100 nM ( $0.015 - 0.15 \mu g/ml$ ).

After reconstitution, the solution should be aliquoted and stored at or below –20°C. Repeated thawing and freezing should be avoided.

**Handling** 

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!

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.

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.

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