

PRODUCT INFORMATION



BSA-NBD-Palmitate Saturated Fatty Acid Complex (1 mM)

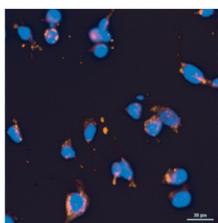
Item No. 44501

Overview and Properties

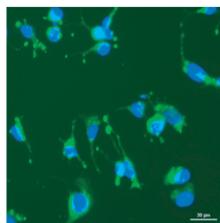
Synonyms: Bovine Serum Albumin-NBD-PA, Bovine Serum Albumin-NBD-Palmitate, BSA-NBD-PA
Supplied in: 1 mM NBD-palmitate:0.17 mM BSA (6:1 NBD-palmitate:BSA) in 150 mM sodium chloride, pH 7.4
Storage: -20°C (as supplied)
Stability: ≥1 year
Item Origin: Animal/Bovine

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

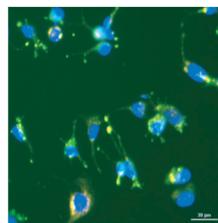
Image



Hoechst nuclear stain (blue), Nile Red neutral lipid stain (red)



Hoechst nuclear stain (blue), NBD-Palmitate (green)



Hoechst, Nile Red and NBD-Palmitate overlay

Huh7 hepatocytes were plated and incubated with 10 μ M BSA-NBD-Palmitate Saturated Fatty Acid Complex (1 mM) (Item No. 44501) for one hour.

Description

BSA-NBD-Palmitate saturated fatty acid complex is composed of NBD-palmitic acid (Item No. 44455) and fatty acid-free bovine serum albumin (BSA) at an approximately 6:1 molar ratio of NBD-palmitate:BSA. It can be used for efficient fatty acid delivery to cells in culture for the purpose of monitoring fatty acid oxidation or similar processes in various cellular metabolic studies.¹⁻³ BSA-NBD-Palmitate saturated fatty acid complex can also be used to visualize lipid uptake using fluorescence microscopy. BSA/BSA-Fatty acids are suitable for use in short-term cell culture applications (acute treatment to 18 hours); however, for long-term applications (25+ hours) the product should be filter-sterilized using a 0.2 μ m filter and sterile receptacle, which will not affect its performance. For best results, it is recommended that this product be used in conjunction with BSA control for BSA-fatty acid complexes (1 mM) (Item No. 34932).

References

1. Alsabeeh, N., Chausse, B., Kakimoto, P.A., *et al.* Cell culture models of fatty acid overload: Problems and solutions. *Biochim. Biophys. Acta Mol. Cell Biol. Lipids* **1863**(2), 143-151 (2018).
2. Wang, D., Green, M.F., McDonnell, E., *et al.* Oxygen flux analysis to understand the biological function of sirtuins. *Methods Mol. Biol.* **1077**, 241-258 (2013).
3. Bentebibel, A., Sebastián, D., Herrero, L., *et al.* Novel effect of C75 on carnitine palmitoyltransferase I activity and palmitate oxidation. *Biochemistry* **45**(14), 4339-4350 (2006).

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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