

PRODUCT INFORMATION



HSA-Palmitate Saturated Fatty Acid Complex (1 mM)

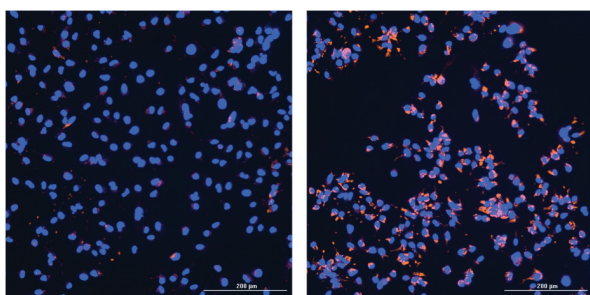
Item No. 43472

Overview and Properties

Synonym: Human Serum Albumin-PA, Human Serum Albumin-Palmitate, HSA-Hexadecanoic Acid, HSA-PA
Supplied as: 1 mM Palmitate:0.17 mM HSA (6:1 palmitate:HSA) in 150 mM sodium chloride, pH 7.4
Storage: -20°C
Stability: ≥2 years
Item Origin: Human

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

Image



HSA Control

HSA-Palmitate

Huh7 hepatocytes were plated and treated with 200 µM HSA-Palmitate Saturated Fatty Acid Complex (1 mM) (Item No. 43472) or HSA Control for HSA-Fatty Acid Complexes (1 mM) (Item No. 43649) for 24 hours. On day two, cells were incubated with Hoechst (blue) and Nile Red (red) for 15 minutes before imaging, showing lipid droplet accumulation.

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

HSA-Palmitate Saturated Fatty Acid Complex (1 mM) is composed of palmitic acid (Item Nos. 10006627 | 43561) and fatty acid-free human serum albumin (HSA) at an approximately 6:1 molar ratio of palmitate:HSA. It can be used for efficient fatty acid delivery to cells in culture for the purpose of monitoring lipid metabolism, including fatty acid oxidation, and inflammatory signaling pathways, such as in studies of obesity-related inflammation and insulin resistance.¹⁻³ It can also be used to study the effect of long-chain fatty acid uptake on gene and protein expression, lipid droplet formation, hepatocyte lipid accumulation, and oxidative stress.⁴⁻⁶ In addition, HSA-palmitate complexes can be used as delivery systems for anticancer compounds.⁷ Cayman's HSA-Palmitate Saturated Fatty Acid Complex (1 mM) is 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 µm filter and sterile receptacle, which will not affect its performance. For best results, it is recommended that this product be used in conjunction with Cayman's HSA Control for HSA-Fatty Acid Complexes (1 mM) (Item No. 43649), prepared with fatty acid-free HSA.

References

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5. Das, S., Finney, A.C., Anand, S.K., *et al.* Inhibition of hepatic oxalate overproduction ameliorates metabolic dysfunction-associated steatohepatitis. *Nat. Metab.* **6**(10), 1939-1962 (2024).
6. Guilfoyle-Speese, A., Patel, K., Ghanwat, A.H., *et al.* Short-chain fatty acids and palmitate induce distinct metabolic and phenotypic signatures in normal and ischemic skeletal muscle microvascular endothelial cells. *Cells* **15**(6), 493 (2026).
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