

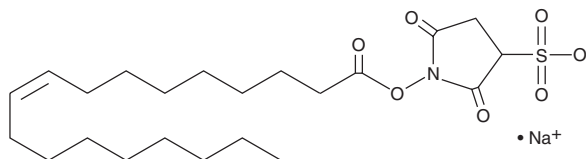
# PRODUCT INFORMATION



## Sulfosuccinimidyl Oleate (sodium salt)

Item No. 11211

**CAS Registry No.:** 1212012-37-7  
**Formal Name:** 9-octadecenoic acid, 2,5-dioxo-3-sulfo-1-pyrrolidinyl ester, monosodium salt  
**Synonym:** SSO  
**MF:**  $C_{22}H_{36}NO_7S \cdot Na$   
**FW:** 482.6  
**Purity:**  $\geq 95\%$   
**Supplied as:** A crystalline solid  
**Storage:**  $-20^{\circ}C$   
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

Sulfosuccinimidyl oleate (SSO) is supplied as a crystalline solid. A stock solution may be made by dissolving the sulfosuccinimidyl oleate (sodium salt) in the solvent of choice, which should be purged with an inert gas. Sulfosuccinimidyl oleate (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of sulfosuccinimidyl oleate (sodium salt) in these solvents is approximately 25 mg/ml.

### Description

Sulfosuccinimidyl oleate (SSO) is an irreversible inhibitor of the fatty acid translocase CD36, blocking uptake of oleate, linoleate, or stearate by about 65% when added at 200  $\mu M$  to adipocytes.<sup>1,2</sup> It reduces the uptake of palmitate by mouse insulinoma MIN6 cells, preventing palmitate-induced changes in insulin secretion.<sup>3</sup> SSO impairs saturated fatty acid-induced lipid accumulation and inflammation in RAW 264.7 macrophages.<sup>4</sup>

### References

1. Harmon, C.M., Luce, P., Beth, A.H., *et al.* Labeling of adipocyte membranes by sulfo-N-succinimidyl derivatives of long-chain fatty acids: Inhibition of fatty acid transport. *J. Membr. Biol.* **121(3)**, 261-268 (1991).
2. Abumrad, N.A., el-Maghrabi, M.R., Amri, E.Z., *et al.* Cloning of a rat adipocyte membrane protein implicated in binding or transport of long-chain fatty acids that is induced during preadipocyte differentiation. Homology with human CD36. *J. Biol. Chem.* **268(24)**, 17665-17668 (1993).
3. Noshmehr, H., D'Amico, E., Farilla, L., *et al.* Fatty acid translocase (FAT/CD36) is localized on insulin-containing granules in human pancreatic  $\beta$ -cells and mediates fatty acid effects on insulin secretion. *Diabetes* **54(2)**, 472-481 (2005).
4. Nicholls, H.T., Kowalski, G., Kennedy, D.J., *et al.* Hematopoietic cell-restricted deletion of CD36 reduces high-fat diet-induced macrophage infiltration and improves insulin signaling in adipose tissue. *Diabetes* **60(4)**, 1100-1110 (2011).

#### 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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