

# PRODUCT INFORMATION



## 5-Octyl D-glutamate

Item No. 16106

CAS Registry No.: 149332-65-0

Formal Name: D-glutamic acid, 5-octyl ester

Synonym: 5-Octyl ester D-glutamic acid

MF:  $C_{13}H_{25}NO_4$

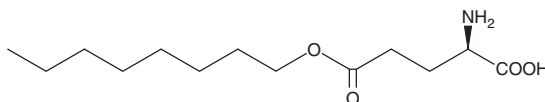
FW: 259.4

Purity:  $\geq 98\%$

Supplied as: A crystalline solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



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

### Laboratory Procedures

5-Octyl D-glutamate is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-octyl D-glutamate in the solvent of choice, which should be purged with an inert gas. 5-Octyl D-glutamate is soluble in methanol (heated). The solubility of 5-octyl L-glutamate in methanol is approximately 1 mg/ml.

### Description

5-Octyl D-glutamate, also known as 5-octyl ester D-glutamate, is a stable, cell-permeable molecule that generates free D-glutamate upon hydrolysis of the ester bond by cytoplasmic esterases. It may be used to increase levels of cytoplasmic D-glutamate. This compound is useful in studies examining the cellular effects of 5-octyl L-glutamate (Item No. 16107) or 5-octyl  $\alpha$ -ketoglutarate (Item No. 16105).<sup>1</sup>

### Reference

1. Chin, R.M., Fu, X., Pai, M.Y., *et al.* The metabolite  $\alpha$ -ketoglutarate extends lifespan by inhibiting ATP synthase and TOR. *Nature* **509**(7505), 397-401 (2014).

#### 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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