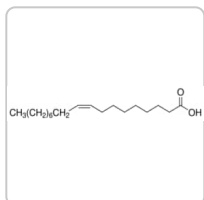


Saisir le nom du produit, le numéro de lot, etc.

[Toutes les photos \(2\)](#)

## Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents »](#)**O1383** ▶ **Sigma-Aldrich.**

# Oleic acid

★★★★★ (0)

suitable for cell culture, BioReagent

## Synonyme(s):

*cis*-9-Octadecenoic acid, Elainic acid

## Formule linéaire:

 $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH}$ Numéro CAS: **112-80-1**

Beilstein: 1726542

Numéro MDL: **MFCD00064242**

NACRES: NA.75

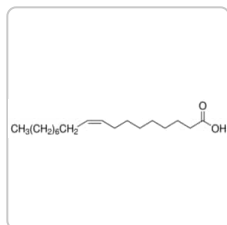
Poids moléculaire: 282.46

Numéro EC: **204-007-1**ID de substance PubChem: **24897941**

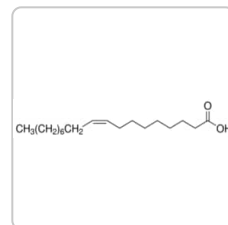
| Référence | Conditionnement | Disponibilité                                                             | Prix     | Quantité                                                                                                                                            |
|-----------|-----------------|---------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| O1383-1G  | 1 G             | ✓ Date d'expédition estimée le 10 octobre 2022 <a href="#">Détails...</a> | 67,10 €  | <input type="text" value="-"/> <input type="text" value="+"/>  |
| O1383-5G  | 5 G             | ✓ Date d'expédition estimée le 10 octobre 2022 <a href="#">Détails...</a> | 260,00 € | <input type="text" value="-"/> <input type="text" value="+"/>  |
| O1383-25G | 25 G            | ✓ Only 1 left in stock (more on the way) <a href="#">Détails...</a>       | 756,00 € | <input type="text" value="-"/> <input type="text" value="+"/>  |

[Demander une commande en gros](#)[Ajouter au panier](#)

## PRODUITS RECOMMANDÉS



Sigma-Aldrich

**O1008****Oleic acid** $\geq 99\%$  (GC)[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

**O1257****Oleic Acid-Water Soluble**

powder, BioReagent, suitable for cell culture

[Consulter le prix et la disponibilité](#)

## PROPRIÉTÉS

|                    |                  |
|--------------------|------------------|
| Source biologique  | palm oil         |
| Niveau de qualité  | 200              |
| Pression de vapeur | 1 mmHg ( 176 °C) |
| Gamme de produits  | BioReagent       |
| Essai/Dosage       | $\geq 99\%$ (GC) |
| Forme              | viscous liquid   |

|                      |                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------|
| technique(s)         | cell culture   mammalian: suitable                                                                          |
| Indice de réfraction | <i>n</i> <sub>20</sub> /D 1.459 (lit.)                                                                      |
| Point de bulle       | 194-195 °C/1.2 mmHg (lit.)                                                                                  |
| Pf                   | 13-14 °C (lit.)                                                                                             |
| Solubilité           | ethanol: soluble                                                                                            |
| Densité              | 0.89 g/mL at 25 °C (lit.)<br>0.89 g/mL at 25 °C (lit.)                                                      |
| Temp. de stockage    | −20°C                                                                                                       |
| SMILES string        | <chem>CCCCCCCC\C=C/CCCCCCCC(O)=O</chem>                                                                     |
| InChI                | 1S/C18H34O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18(19)20/h9-10H,2-8,11-17H2,1H3,<br>(H,19,20)/b10-9- |
| InChI key            | ZQPPMHVWECSIRJ-KTKRTIGZSA-N                                                                                 |
| Gene Information     | human ... <a href="#">SOAT1(6646)</a> , <a href="#">SOAT2(8435)</a>                                         |

Vous recherchez des produits similaires ? Visitez [Guide de comparaison des produits](#)

## Catégories apparentées

### [Lipids for Therapeutics and Research](#)

## DESCRIPTION

### Description générale

Oleic acid is a mono-unsaturated omega-9 fatty acid created by dehydrogenation of stearic acid. It is then further dehydrogenated and elongated to create members of the n-9 family of fatty acids. Oleic acid is not an essential fatty acid (EFA); however, providing it to cells in culture reduces energy demand.

Oleic acid mediates complete oxidation of fatty acid in sirtuin1- proliferator-activated receptor  $\gamma$  coactivator-1 $\alpha$  (SIRT1-PGC-1 $\alpha$ ) signalling pathway. Oleic acid shows anti-inflammatory properties related to atherosclerosis and insulin resistant state. Oleic acid inhibits permeability in gap junctions and promotes glucose uptake in astrocytes. Oleic acid aids in neural cell proliferation by increasing glucose uptake and by protein kinase C (PKC) activation. Oleic acid is essential for axonal growth and neuronal clustering.

### Application

Oleic acid has been used:

- in fatty acid oxidation rate experiments in myotubes and in Sirt1 enzyme assay
- to determine quantitatively its effect on lipid droplets by optical diffraction tomography
- as a fatty acid source in the medium for primary hepatocyte culture

### Conditionnement

1, 5, 25 g in ampule

Sealed ampule.

### Actions biochimiques/physiologiques

Activates protein kinase C in hepatocytes.

Uncouples oxidative phosphorylation. Inhibits 2,4-dinitrophenol-stimulated ATPase. Action reversed by adding serum albumin.

## Attention

Unsaturated fatty acids are subject to oxidation and peroxidation. Consider complexed fatty acid supplements.

---

## PRODUITS APPARENTÉS

### Recommandé(E)(S)

---

#### O3008

Oleic Acid-Albumin from bovine serum, liquid, sterile-filtered, BioReagent, suitable for cell culture

[View Pricing](#)

---

#### L9655

Linoleic Acid-Oleic Acid-Albumin, 100x, liquid, sterile-filtered, BioReagent, suitable for cell culture

[View Pricing](#)

---

## INFORMATIONS SUR LA SÉCURITÉ

**Code de la classe de  
stockage**

**WGK**  
WGK 1

**Flash Point(F)**  
159.8 °F - closed cup

**Point d'éclair C**  
71 °C - closed cup

## 10 - Combustible liquids

### Équipement de protection individuelle

Eyeshields, Gloves, type  
ABEK (EN14387) respirator  
filter

---

## DOCUMENTATION

### Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

#### Comment saisir un numéro de lot (COA)

**Rechercher**

### Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

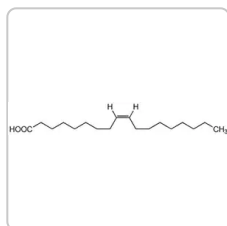
#### Comment saisir un numéro de lot (COO)

**Rechercher**

## Plus De Documents

[FT-NMR Spectra](#)[Pressure-Temperature Nomograph](#)[Spectra - ATR-IR](#)[Spectra for FT-IR Raman](#)[Structure Search](#)[FDS](#)

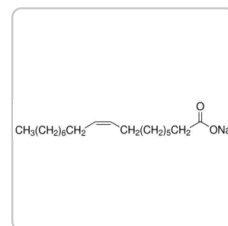
## LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

**4954**

Oleic Acid - CAS 112-80-1 - Calbiochem

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

**O7501**

Sodium oleate

≥99%

[Consulter le prix et la disponibilité](#)

## ARTICLES REVUS PAR DES PAIRS

**The role of proliferator-activated receptor gamma coactivator-1alpha in the fatty-acid-dependent transcriptional control of interleukin-10 in hepatic cells of rodents**

Morari J, et al.

*Metabolism, Clinical and Experimental*, 59(2), 215-223 (2010)

---

## **Oleic acid stimulates complete oxidation of fatty acids through protein kinase A-dependent activation of SIRT1-PGC1alpha complex**

**Lim JH, et al.**

*The Journal of Biological Chemistry*, 288(10), 7117-7126 (2013)

---

*Beneficial effect of fish oil on human brain* (2009)

---

## **Three-dimensional label-free imaging and quantification of lipid droplets in live hepatocytes**

**Kim K, et al.**

*Scientific Reports*, 6(10), 36815-36815 (2016)

---

## **Origin of the large dispersion of magnetic properties in nanostructured oxides: Fe(x)O/Fe<sub>3</sub>O<sub>4</sub> nanoparticles as a case study.**

**Marta Estrader et al.**

*Nanoscale*, 7(7), 3002-3015 (2015-01-21)

The intimate relationship between stoichiometry and physicochemical properties in transition-metal oxides makes them appealing as tunable materials. These features become exacerbated when dealing with nanostructures. However, due to the complexity of nanoscale materials, establishing a distinct relationship between structure-morphology and

---

[Afficher tous les articles scientifiques apparentés](#)

---

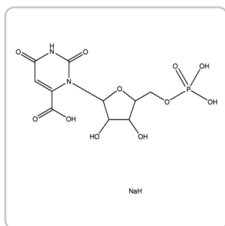
## **PROTOCOLES ET ARTICLES SCIENTIFIQUES**

### **Articles**

#### **Lipid-induced Insulin Resistance**

Lipid Induced Insulin Resistance

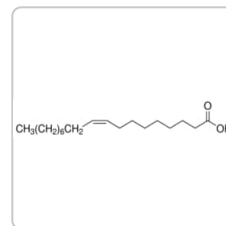
## PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

**O1376**

**Orotidine 5'-monophosphate trisodium salt**  
≥99% (HPLC), powder

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

**O1257**

**Oleic Acid-Water Soluble**  
powder, BioReagent, suitable for cell culture

[Consulter le prix et la disponibilité](#)

## Évaluations

[Soyez le premier à donner votre avis sur ce produit](#)

## Questions

[Soyez le premier à poser une question](#)

## SERVICE TECHNIQUE