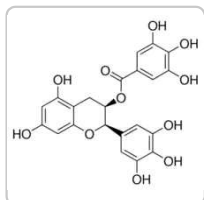


Saisir le nom du produit, le numéro de lot, etc.

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

Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents >>](#)**E4143** ▶ **Sigma-Aldrich.**

(-)-Epigallocatechin gallate

★★★★★ (0)

≥95%

Synonyme(s):

(-)-*cis*-2-(3,4,5-Trihydroxyphenyl)-3,4-dihydro-1(2H)-benzopyran-3,5,7-triol 3-gallate, (-)- *cis*-3,3',4',5,5',7-Hexahydroxy-flavane-3-gallate, EGCG

Empirical Formula (Hill Notation):

C₂₂H₁₈O₁₁Numéro CAS: **989-51-5**

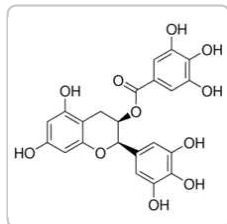
Poids moléculaire: 458.37

Numéro MDL: **MFCD00075940**ID de substance PubChem: **57654158**

Référence	Conditionnement	Disponibilité	Prix	Quantité
E4143-50MG	50 MG	 Only 4 left in stock (more on the way) Détails...	188,00 €	- + 

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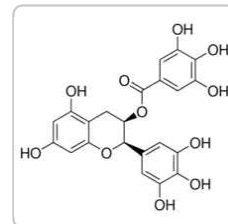
PRODUITS RECOMMANDÉS



Sigma-Aldrich

E4268**(-)-Epigallocatechin gallate**

≥80% (HPLC), from green tea

[Consulter le prix et la disponibilité](#)

Supelco

PHR1333**Epigallocatechin gallate**

Pharmaceutical Secondary Standard; Certified Reference Material

[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Niveau de qualité	200
Essai/Dosage	≥95%
Solubilité	H ₂ O: ≥5 mg/mL, clear
Temp. de stockage	2-8°C
SMILES string	<chem>Oc1cc(O)c2C[C@@H](OC(=O)c3cc(O)c(O)c(O)c3)[C@H](Oc2c1)c4cc(O)c(O)c(O)c4</chem>
InChI	1S/C22H18O11/c23-10-5-12(24)11-7-18(33-22(31)9-3-15(27)20(30)16(28)4-9)21(32-17(11)6-10)8-1-13(25)19(29)14(26)2-8/h1-6,18,21,23-30H,7H2/t18-,21-/m1/s1
InChI key	WMBWREPUVVBILR-WIYYLYMNSA-N
Gene Information	human ... CYP1A2(1544)

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

DESCRIPTION

Description générale

(-)-Epigallocatechin gallate from green tea is the prime bioactive component, accounting for 50-80% of the total catechin content. It comprises a chemical structure similar to that of epicatechin gallate (ECG), an ester of gallic acid and epigallocatechin.

Application

(-)-Epigallocatechin gallate has been used:

- as an anti-tumor agent on murine TRAMP metastatic prostate cell line by cell proliferation assay, apoptosis detection and modified Boyden-chamber assay
- induces cell death in acute myeloid leukaemia through death associated protein kinase-2 pathway analyzed through cell viability, cell cycle and apoptosis assay
- as an inhibitor of osteoclast differentiation in murine preosteoclast cell line RAW264.7
- to promote myogenic differentiation

Conditionnement

50 mg in poly bottle

Actions biochimiques/physiologiques

(-)-Epigallocatechin gallate (EGCG), an antioxidant polyphenol flavonoid exerts anti-tumor properties by inhibiting telomerase and DNA methyltransferase activity. EGCG inhibits the expression of matrix metalloproteinase-2 (MMP-2), MMP-9 and reduces the invasiveness. EGCG blocks the activation of epidermal growth factor (EGF) receptors and human epidermal growth factor receptor-2 (HER-2). EGCG increases bone mineral density and reduces bone resorption. EGCG inhibits osteoclastogenesis by inhibiting receptor activator of nuclear factor κ -B ligand (RANKL) induced nuclear factor κ B (NF- κ B) transcriptional activity.



EGCG reduces skeletal muscle atrophy. EGCG has anti-aging property and increases myogenic differentiation. EGCG inhibits fatty acid synthase and glutamate dehydrogenase activity.

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS07,GHS09

Mention d'avertissement

Warning

Mentions de danger

H302 - H317 - H319 - H411

Conseils de prudence

**P261 - P273 - P280 - P301 +
P312 - P302 + P352 - P305 +
P351 + P338**

Classification des risques

Acute Tox. 4 Oral - Aquatic
Chronic 2 - Eye Irrit. 2 - Skin
Sens. 1

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 2

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

Équipement de protection individuelle

Eyeshields, Gloves, type N95
(US)

DOCUMENTATION

Certificat d'analyse

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

Numéro de lot

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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

Fiche D'informations Produit

[Product Information Sheet - E4143](#)

Newsletter / Publication

[The Effective Use of Protein Kinase Inhibitors](#)

Plus De Documents

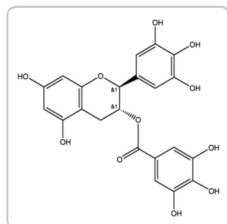
[Nutrition Research](#)

[Structure Search](#)

[FDS](#)

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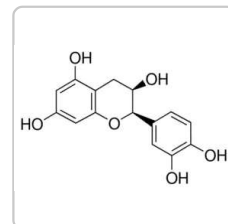
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

G6782**(-)-Gallocatechin gallate**

from green tea, ≥98% (HPLC)

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

E4018**(-)-Epicatechin**

≥98% (HPLC), from green tea

[Consulter le prix et la disponibilité](#)

QUESTIONS FRÉQUEMMENT POSÉES (FAQ)

How does the storage temperature relate to shipping conditions?

The storage conditions that a Sigma-Aldrich catalog and label recommend for products are deliberately conservative. For many products, long-term storage at low temperatures will increase the time during which they are expected to remain in specification and therefore are labeled accordingly. Where short-term storage, shipping time frame, or exposure to conditions other than those recommended for long-term storage will not affect product quality, Sigma-Aldrich will ship at ambient temperature. The products sensitive to short-term exposure to conditions other than their recommended long-term storage are shipped on wet or dry ice. Ambient temperature shipping helps to control shipping costs for our customers. At any time, our customers can request wet- or dry-ice shipment, but the special handling is at customer expense if our product history indicates that the product is stable for regular shipment. See [Shipping and Storage](#) for more information.

Which document(s) contains shelf-life or expiration date information for a given product?

If available for a given product, the recommended re-test date or the expiration date can be found on the Certificate of Analysis.

How do I get lot-specific information or a Certificate of Analysis?

The lot specific COA document can be found by entering the lot number above under the "Documents" section.

[HAUT](#)

How do I find price and availability?

There are several ways to find pricing and availability for our products. Once you log onto our website, you will find the price and availability displayed on the product detail page. You can contact any of our Customer Sales and Service offices to receive a quote. USA customers: 1-800-325-3010 or view [local office numbers](#).

What is the Department of Transportation shipping information for this product?

Transportation information can be found in Section 14 of the product's (M)SDS. To access the shipping information for this material, use the link on the product detail page for the product.

Is (-)-Epigallocatechin gallate (Product No. E4143) sterile and tested for endotoxins?

Product No. E4143 ((-)-Epigallocatechin gallate) is not prepared under sterile conditions and has not been tested for endotoxins.

Is (-)-Epigallocatechin gallate (Product No. E4143) for human use

No. Product No. E4143 ((-)-Epigallocatechin gallate) is for laboratory research use only, not for human use.

What is the solubility of (-)-Epigallocatechin gallate (E4143)?

We have tested the solubility of (-)-Epigallocatechin gallate at 5 mg/mL in water.

What is the solution stability of (-)-Epigallocatechin gallate (E4143)?

A solution of (-)-Epigallocatechin gallate in water at a concentration of 0.3 mg/mL was found to have significantly decreased in purity (from 99.6% to 81.7%) after 2.5 hours at room temperature. A similar solution of (-)-Epigallocatechin gallate in water at a concentration of 0.3 mg/mL was found to have decreased in purity only slightly (from 99.5% to 99.3%) after 2.0 hours at 4 °C.

Can (-)-Epigallocatechin gallate be determined in plasma and urine?

The determination of (-)-Epigallocatechin gallate in plasma and urine by HPLC has been reported in Cancer Epidemiol. Biomark. Prev., 4, 393 (1995).

My question is not addressed here, how can I contact Technical Service for assistance?

Ask a Scientist [here](#).


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ARTICLES REVUS PAR DES PAIRS

Proposed mechanisms of (-)-epigallocatechin-3-gallate for anti-obesity

Moon HS, et al.

Chemico-Biological Interactions, 167(2), 85-98 (2007)

Topical Application of Hyaluronic Acid-RGD Peptide-Coated Gelatin/Epigallocatechin-3 Gallate (EGCG) Nanoparticles Inhibits Corneal Neovascularization Via Inhibition of VEGF Production.

Takuya Miyagawa et al.

Pharmaceutics, 12(5) (2020-05-02)

Neovascularization (NV) of the cornea disrupts vision which leads to blindness. Investigation of antiangiogenic, slow-release and biocompatible approaches for treating corneal NV is of great importance. We designed an eye drop formulation containing gelatin/epigallocatechin-3-gallate (EGCG) nanoparticles (NPs) for targeted therapy

(-)-Epigallocatechin gallate inhibition of osteoclastic differentiation via NF-kappaB

Lin RW, et al.

Biochemical and Biophysical Research Communications, 379(4), 1033-1037 (2009)

(-)-Epigallocatechin-3-gallate stimulates myogenic differentiation through TAZ activation

Kim AR, et al.

Biochemical and Biophysical Research Communications, 486(2), 378-384 (2017)

Epigallocatechin-3-gallate induces cell death in acute myeloid leukaemia cells and supports all-trans retinoic acid-induced neutrophil differentiation via death-associated protein kinase 2

Britschgi A, et al.

British Journal of Haematology, 149(1), 55-64 (2010)

[Afficher tous les articles scientifiques apparentés](#)

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PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

NF-κB and Inflammation

Chronic inflammation is an underlying factor in the development and progression of many of the chronic diseases of aging, such as arthritis, atherosclerosis, diabetes, and cancer.

Glutamine Metabolism is Dysregulated in Many Cancer Cells

Sigma-Aldrich presents an article about how proliferatively active cells require both a source of carbon and of nitrogen for the synthesis of macromolecules. Although a large proportion of tumor cells utilize aerobic glycolysis and shunt metabolites away from mitochondrial oxidative...

Carcinogenesis and Epigenetics

Cancer research has revealed that the classical model of carcinogenesis, a three step process consisting of initiation, promotion, and progression, is not complete.

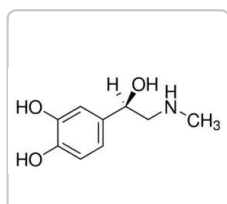
Fatty Acid Synthesis and Metabolism in Cancer Cells

Information on fatty acid synthesis and metabolism in cancer cells. Learn how proliferatively active cells require fatty acids for functions such as membrane generation, protein modification, and bioenergetic requirements. These fatty acids are derived either from dietary sources or are...

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PRODUITS CONSULTÉS RÉCEMMENT

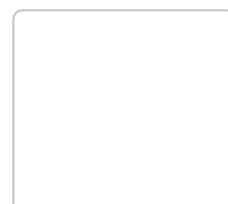
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Sigma-Aldrich

E4250

(-)-Epinephrine

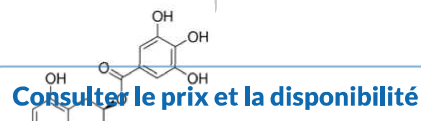


Sigma-Aldrich

E4268

(-)-Epigallocatechin gallate

≥80% (HPLC), from green tea

[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

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

[Contacter notre Service technique](#)[^
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