Dr. Jordi García’s group (School of Chemistry, University of Barcelona), in collaboration with the Regulation of lipid metabolism in obesity and diabetes group (School of Pharmacy and Food Sciences, University of Barcelona), offers bioactive chemical compounds to be used in the biochemical and medical research area.

Both groups are specialized in the organic synthesis and development of new paraconic acid analogous, as (+)- and (–)-C75 enantiomers and biochemical analysis.

C75 is a chiral synthetic compound with structure of α-methylene-γ-butyrolactone similar to that found in natural paraconic acids. This product displays a broad range of biological activities with antibiotic, antitumor, antivirus and antiobesity properties.

Our laboratories are located at the Barcelona Knowledge Campus (BKC) of the University of Barcelona.

Web address http://www.fbg.ub.edu/
### Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Size</th>
<th>Price</th>
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<tbody>
<tr>
<td>(+)-C75 enantiomer</td>
<td>1 mg</td>
<td>170 €</td>
</tr>
<tr>
<td>(2R,3S)-4-methylene-2-octyl-5-oxotetrahydrofuran-3-carboxylic acid</td>
<td>5 mg</td>
<td>780 €</td>
</tr>
<tr>
<td>CAS number 1234694-20-2</td>
<td>10 mg</td>
<td>1,390 €</td>
</tr>
<tr>
<td></td>
<td>25 mg</td>
<td>3,040 €</td>
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![Structure of (+)-C75](image)

Product Information see below

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<thead>
<tr>
<th>Product</th>
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<tbody>
<tr>
<td>(–)-C75 enantiomer</td>
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<tr>
<td>CAS number 1234694-22-4</td>
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</tbody>
</table>

![Structure of (–)-C75](image)

Product Information see below

### Related publications:

- **Novel effect of C75 on carnitine palmitoyltransferase I activity and palmitate oxidation.** Biochemistry, 2006, 45, 4339-4350.


- **C75 is converted to C75-CoA in the hypothalamus, where it inhibits carnitine palmitoyltransferase I and decreases food intake and body weight.** Biochemical Pharmacology, 2009, 77, E1084-1095.

- **Differential pharmacologic properties of the two C75 enantiomers: (+)-C75 is a strong anorectic drug, (–)-C75 has antitumoral activity.** Chirality, 2013, 5, 281-7.

- **Convenient synthesis of C75, an inhibitor of FAS and CPT1.** RSC Advances, 2013, 3, 6364-71.

ORGANIC SYNTHESIS GROUP

Led by Professor J. García, the organic synthesis group has more than ten years of experience in the stereoselective synthesis of paraconic acids and their derivatives.

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LIPID METABOLISM GROUP

Led by Professor D. Serra, the group has long experience in the use of C75 and C75 derivatives, in vivo and in vitro to treat obesity and tumors.

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http://www.ub.edu/betaoxi/
ORDERS

e-mail: jordigarcia@gomez@ub.edu / dserra@ub.edu
Samples of 1 mg, 5 mg, 10 mg and 25 mg are available.
For pricing, see Products

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TECHNICAL SUPPORT

For chemical aspects:
J. Garcia, PhD
jordigarcia@gomez@ub.edu

For biochemical aspects:
D. Serra, PhD
dserra@ub.edu
**Product Information**

CAS number: 1234694-22-4  
Synonym: (2S,3R)-4-methylene-2-octyl-5-oxotetrahydrofuran-3-carboxylic acid (2S,3R)-C75  
Molecular Formula: C14H22O4  
Molecular Weight: 254.32  
Purity >98% (1H NMR). Free from (+) isomer  
Shipping: by FEDEX at rt

**Description:** (–)-C75 is a novel, potent inhibitor of fatty acid synthase (FAS) which has cytotoxic effect on tumour cell lines, without affecting either food consumption or body weight. In contrast, the racemic form of C75 produces hypophagia and weight loss in rodents, limiting its development as a potential anti-cancer drug. It has recently been demonstrated that anorexic effect of racemic C75 is due to the (+) isomer through its CoA derivative, acting as a carnitine palmitoyltransferase (CPT) 1 inhibitor.

**Storage:** (–)-C75 can be stored at –10 °C for 1 year hermetically closed without loss of activity. Alternatively, can be stored in a refrigerator (2-8 °C) for a few weeks.  
**Solubility:** soluble in DMSO, MeOH, CH2Cl2, EtOH, pH > 9 water solutions.  
**Formulation:** off-white solid  
**Precautions and Disclaimer:** This product is for R&D use only. Not for administration to humans or veterinary use.

**References:**
1) Makowski, K., Mera, P., Paredes, D., Herrero, L., Ariza, X., Asins, G., Serra, Garcia, J., Hegardt, F.G. Differential pharmacologic properties of the two C75 enantiomers: (+)-C75 is a strong anorectic drug. (–)-C75 has antitumoral activity. Submitted  

**Patent:** The pharmacological use of (–)-C75 is protected by the patent ES2654.1 P201131910

**Related products:** (+)-C75

**Material Safety Data**
(–)-C75 should be considered hazardous until information to the contrary becomes available. Do no ingest, swallow, or inhale. Do not get into eyes, on skin, or on clothing. Wash thoroughly after handling.

**Availability:**  
Samples of 1 mg, 5 mg, 10 mg and 25 mg are available. Contact us for prices and shipping details.
CAS number: 1234694-20-2
Synonym: (2R,3S)-4-methylene-2-octyl-5-oxotetrahydrofuran-3-carboxylic acid (2R,3S)-C75
Molecular Formula: C_{14}H_{22}O_{4}
Molecular Weight: 254.32
Purity >98% (1H NMR). Free from (–) isomer
Shipping: by FEDEX at rt

Storage: (+)-C75 can be stored at –10 °C for 1 year, hermetically closed without loss of activity. Alternatively, it can be stored in a refrigerator (2-8 °C) for a few weeks.

Solubility: soluble in DMSO, MeOH, CH_{2}Cl_{2}, EtOH, pH > 9 water solutions.

Formulation: off-white solid

Precautions and Disclaimer: This product is for R&D use only. Not for administration to humans or veterinary use.

Description: (+)-C75 is a novel, potent inhibitor of CPT1. After central and peripheral administration, (+)-C75 produces hypophagia and weight loss in rodents, suggesting that central inhibition of CPT1 is essential for the anorectic effect of C75. In contrast, the (–) form of C75 does not produces these effects but acts as a potent FAS inhibitor. It has been recently demonstrated that anorexic effect of racemic C75 is due to the (+) isomer through its CoA derivative, acting as a carnitine palmitoyltransferase (CPT) 1 inhibitor.

References:
1) Makowski, K., Mera, P., Paredes, D., Herrero, L., Ariza, X., Asins, G., Serra, Garcia, J., Hegardt, F.G. Differential pharmacologic properties of the two C75 enantiomers: (+)-C75 is a strong anorectic drug. (–)-C75 has antitumoral activity. Submitted

Patent: The pharmacological use of (+)-C75 is protected by the patent ES2654.2 P201131911

Related products: (–)-C75

Material Safety Data
(+)-C75 should be considered hazardous until information to the contrary becomes available. Do no ingest, swallow, or inhale. Do not get into eyes, on skin, or on clothing. Wash thoroughly after handling.

Availability:
Samples of 1 mg, 5 mg, 10 mg and 25 mg are available. Contact us for prices and shipping details