

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** L-DON

**Catalog No.:** 6809

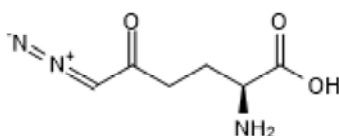
**Batch No.:** 1

CAS Number: 157-03-9

IUPAC Name: 6-Diazo-5-oxo-L-norleucine

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>6</sub>H<sub>9</sub>N<sub>3</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 171.15  
**Physical Appearance:** Off White solid  
**Solubility:** water to 50 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +15.7 (Concentration = 2.05, Solvent = Water)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com  
techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956

## Product Information

[www.tocris.com](http://www.tocris.com)

**Product Name:** L-DON

**Catalog No.:** 6809

**Batch No.:** 1

CAS Number: 157-03-9

IUPAC Name: 6-Diazo-5-oxo-L-norleucine

### Description:

Glutaminase inhibitor ( $K_i = 6 \mu\text{M}$ ). Also inhibits other glutamine-using enzymes, amino acid transporters and transglutaminases. Displays antitumor effects and reduces tumor weight in a range of mouse xenograft models.

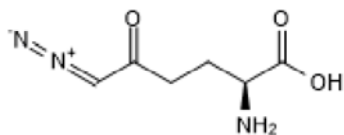
### Physical and Chemical Properties:

Batch Molecular Formula:  $\text{C}_6\text{H}_9\text{N}_3\text{O}_3$

Batch Molecular Weight: 171.15

Physical Appearance: Off White solid

### Batch Molecular Structure:



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

### Solubility & Usage Info:

water to 50 mM

### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a  $45\text{--}60^\circ\text{C}$  water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at  $-20^\circ\text{C}$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

### References:

**Lemberg *et al*** (2018) We're not "DON" yet: optimal dosing and prodrug delivery of 6-diazo-5-oxo-L-norleucine. *Mol.Cancer Ther.* **17** 1824. PMID: 30181331.

**Thomas *et al*** (2013) Kinetic characterization of ebselen, chelerythrine and apomorphine as glutaminase inhibitors. *Biochem.Biophys.Res.Comm.* **438** 243. PMID: 23850693.

**Ovejera *et al*** (1979) Efficacy of 6-diazo-5-oxo-L-norleucine and *N*-[*N*-γ-glutamyl-6-diazo-5-oxo-norleucinyl]-6-diazo-5-oxo-norleucine against experimental tumors in conventional and nude mice. *Cancer Res.* **39** 3220. PMID: 572261.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

[info@bio-techne.com](mailto:info@bio-techne.com)

[techsupport@bio-techne.com](mailto:techsupport@bio-techne.com)

**North America**

Tel: (800) 343 7475

**China**

[info.cn@bio-techne.com](mailto:info.cn@bio-techne.com)

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

[www.tocris.com/distributors](http://www.tocris.com/distributors)

Tel: +1 612 379 2956