

## Certificate of Analysis

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**Product Name:** Ethyl LipotF

**Catalog No.:** 5950

**Batch No.:** 1

CAS Number: 1808089-27-1

IUPAC Name: Ethyl (E)-4-(2-(4-benzylnicotinoyl)hydrazinyl)-4-oxobut-2-enoate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub>  
**Batch Molecular Weight:** 353.38  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 20 mM  
DMSO to 100 mM  
**Storage:** Store at -20°C

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	64.58	5.42	11.89
Found	64.28	5.44	11.87

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)

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**Description:**

Selective FTO inhibitor (IC<sub>50</sub> = 0.81 μM). Exhibits >30-fold selectivity for FTO over ALKBH2, 3 and 5 and >100-fold selectivity over PHD2 and JMJD2A. Increases levels of modified N<sup>6</sup>-methyladenosine (m<sup>6</sup>A) in HeLa cells in a concentration-dependent manner.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub>

Batch Molecular Weight: 353.38

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Storage:** Store at -20°C

**Solubility & Usage Info:**

ethanol to 20 mM

DMSO to 100 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 45-60°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°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Cheong *et al*** (2018) A fluorescent methylation-switchable probe for highly sensitive analysis of FTO N<sup>6</sup>-methyladenosine demethylase activity in cells. *Chem.Sci.* **9** 7174. PMID: 30288236.

**Toh *et al*** (2015) A strategy based on nucleotide specificity leads to a subfamily-selective and cell-active inhibitor of N<sup>6</sup>-methyladenosine demethylase FTO. *Chem.Sci.* **6** 112. PMID: 28553460.

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