

## Certificate of Analysis

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

**Product Name:** Metyrapone

**Catalog No.:** 3292

**Batch No.:** 8

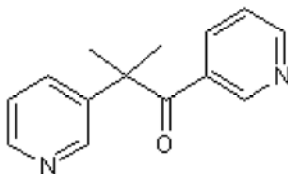
CAS Number: 54-36-4

EC Number: 200-206-2

IUPAC Name: 2-Methyl-1,2-di-3-pyridinyl-1-propanone

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O  
**Batch Molecular Weight:** 226.27  
**Physical Appearance:** Off-white solid  
**Solubility:** water to 10 mM  
 DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	74.31	6.24	12.38
Found	73.56	6.26	12.33

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 Name:** Metyrapone

**Catalog No.:** 3292

**8**

CAS Number: 54-36-4

EC Number: 200-206-2

IUPAC Name: 2-Methyl-1,2-di-3-pyridinyl-1-propanone

**Description:**

Metyrapone is a cytochrome P450 inhibitor. Blocks glucocorticoid synthesis via inhibition of steroid 11- $\beta$  hydroxylase (CYP11B1) activity ( $IC_{50}$  = 7.83  $\mu$ M). Also inhibits CYP3A4 and cytochrome P450-mediated  $\omega/\omega$ -1 hydroxylase activity.

**Physical and Chemical Properties:**

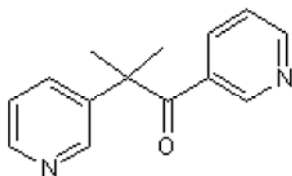
Batch Molecular Formula: C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O

Batch Molecular Weight: 226.27

Physical Appearance: Off-white solid

**Minimum Purity:**  $\geq$ 98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 10 mM

DMSO to 100 mM

Solutions in DMSO may appear slightly hazy.

**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:**

**Park et al** (2005) Structural and dynamic basis of broad substrate specificity, catalytic mechanism and inhibition of cytochrome P450 3A4. *J. Am. Chem. Soc.* **127** 13634. PMID: 16190729.

**Asakura and Shichi** (1992) Cytochrome P450-mediated prostaglandin omega/omega-1 hydroxylase activities in porcine ciliary body epithelial cells. *Exp. Eye Res.* **55** 377. PMID: 1426070.

**Hays et al** (1984) Structure-activity relationship study of the inhibition of adrenal cortical 11 $\beta$ -hydroxylase by new metyr. analogues. *J. Med. Chem.* **27** 15. PMID: 6606707.

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

Tel: +1 612 379 2956