

**Product Name:** AC 5216

**Catalog No.:** 5281

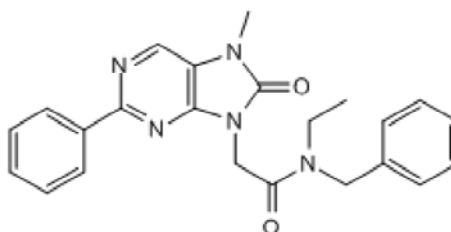
**Batch No.:** 3

CAS Number: 226954-04-7

IUPAC Name: *N*-Ethyl-7,8-dihydro-7-methyl-8-oxo-2-phenyl-*N*-(phenylmethyl)-9*H*-purine-9-acetamide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>23</sub>H<sub>23</sub>N<sub>5</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 401.46  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	68.81	5.77	17.44
Found	68.83	5.75	17.45

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

**Product Name:** AC 5216

**Catalog No.:** 5281

**Batch No.:** 3

CAS Number: 226954-04-7

IUPAC Name: *N*-Ethyl-7,8-dihydro-7-methyl-8-oxo-2-phenyl-*N*-(phenylmethyl)-9*H*-purine-9-acetamide

**Description:**

Ligand of translocator protein (TSPO, peripheral benzodiazepine receptor). Exhibits high affinity for TSPO in rat whole brain ( $K_i = 0.297$  nM), and high potency against human and rat glial TSPO ( $IC_{50}$  values are 2.73 and 3.04 nM respectively). Displays no noticeable binding to a number of other receptors, transporters or ion channels. Also displays anxiolytic and antidepressant effects in rodent models, without inducing benzodiazepine-like adverse effects.

**Physical and Chemical Properties:**

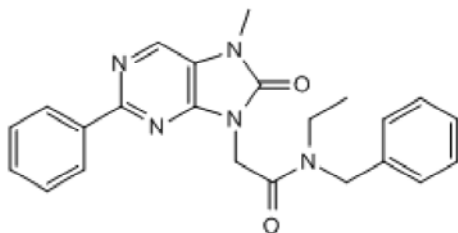
Batch Molecular Formula:  $C_{23}H_{23}N_5O_2$

Batch Molecular Weight: 401.46

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

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:**

**Qiu et al** (2013) Repeated administration of AC-5216, a ligand for the 18kDa translocator protein, improves behavioral deficits in a mouse model of post-traumatic stress disorder. *Prog.Neuropsychopharmacol.Biol.Psychiatry* **45** 40. PMID: 23624119.

**Kita et al** (2004) Antianxiety and antidepressant-like effects of AC-5216, a novel mitochondrial benzodiazepine receptor ligand. *Br.J.Pharmacol.* **142** 1059. PMID: 15249420.

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