Certificate of Analysis

Product Name: **TCS 46b** **Catalog No.: 2782** **Batch No.: 2**

CAS Number: 302799-86-6

IUPAC Name: 1,3-Dihydro-5-[3-[4-(phenylmethyl)-1-2*H*-benzimidazol-2-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{23}N_3O$

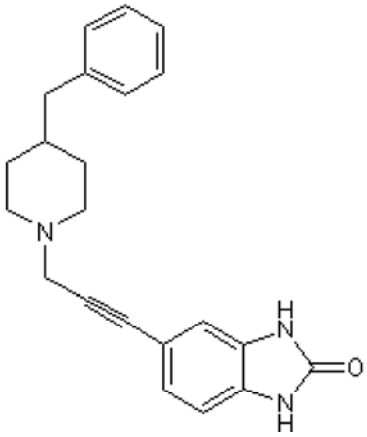
Batch Molecular Weight: 345.44

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.17 (Ethyl acetate)

HPLC: Shows >99% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	76.49	6.71	12.16
Found	76.48	6.72	11.99

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

Product Information

Product Name: **TCS 46b** **Catalog No.: 2782** **Batch No.: 2**

CAS Number: 302799-86-6

IUPAC Name: 1,3-Dihydro-5-[3-[4-(phenylmethyl)-1-2*H*-benzimidazol-2-one

Description:

Orally active, subtype-selective GluN1A/GluN2B (formally NR1A/NR2B) NMDA receptor antagonist (IC_{50} values are 5.3, 35000 and > 100000 nM for GluN1A/2B (NR1A/2B), GluN1A/2B (NR1A/2B) and GluN1A/2C (NR1A/2C) receptor subtypes respectively). Potentiates the effect of L-DOPA in 6-OHDA-lesioned rats following oral administration. Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions.

Physical and Chemical Properties:

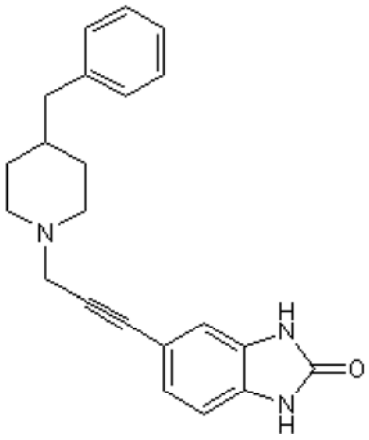
Batch Molecular Formula: $C_{22}H_{23}N_3O$

Batch Molecular Weight: 345.44

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol 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:

Roger *et al* (2003) Synthesis, radiosynthesis and in vivo evaluation of 5-[3-(4-benzylpiperidin-1-yl)prop-1-ynyl] -1,3-dihydrobenzoimidazol-2-[^{11}C]one, as a potent NR_{1A}/2B subtype selective NMDA PET radiotracer. Bioorg.Med.Chem. ***11*** 5401. PMID: 14642584.

Wright *et al* (2000) Subtype-selective *N*-methyl-D-aspartate receptor antagonists: synthesis and biological evaluation of 1-(heteroarylalkynyl)-4-benzylpiperidines. J.Med.Chem. ***43*** 3408. PMID: 10978188.

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