

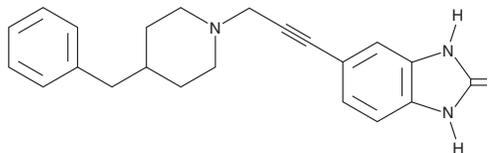
PRODUCT INFORMATION



TCS 46b

Item No. 42123

CAS Registry No.: 302799-86-6
Formal Name: 1,3-dihydro-5-[3-[4-(phenylmethyl)-1-piperidiny]-1-propyn-1-yl]-2H-benzimidazol-2-one
MF: C₂₂H₂₃N₃O
FW: 345.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

TCS 46b is supplied as a solid. A stock solution may be made by dissolving the TCS 46b in the solvent of choice, which should be purged with an inert gas. TCS 46b is slightly soluble (0.1-1 mg/ml) in ethanol and DMSO.

Description

TCS 46b is an antagonist of NMDA receptors containing NR1A/2B subunits ($IC_{50} = 0.0053 \mu M$).¹ It is selective for NMDA receptors containing NR1A/2B subunits over NMDA receptors containing NR1A/2A and NR1A/2C subunits ($IC_{50}s = 35$ and $>100 \mu M$, respectively). TCS 46b (10 mg/kg) inhibits L-DOPA-induced contralateral rotations in a rat model of Parkinson's disease induced by 6-OHDA (Item No. 25330). It has been radiolabeled and used as an NR1A/2B-selective PET radiotracer.²

References

1. Wright, J.L., Gregory, T.F., Kesten, S.R., *et al.* Subtype-selective N-methyl-D-aspartate receptor antagonists: Synthesis and biological evaluation of 1-(heteroarylalkynyl)-4-benzylpiperidines. *J. Med. Chem.* **43(18)**, 3408-3419 (2000).
2. Roger, G., Lagnel, B., Besret, L., *et al.* Synthesis, radiosynthesis and in vivo evaluation of 5-[3-(4-benzylpiperidin-1-yl)prop-1-ynyl]-1,3-dihydrobenzimidazol-2-[¹¹C]one, as a potent NR_{1A}/2B subtype selective NMDA PET radiotracer. *Bioorg. Med. Chem.* **11(24)**, 5401-5408 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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