

Certificate of Analysis

www.tocris.com

Product Name: ABS 205

Catalog No.: 2721

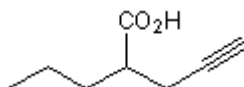
Batch No.: 1

CAS Number: 24102-11-2

IUPAC Name: 2-Propyl-4-pentynoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₂O₂
Batch Molecular Weight: 140.18
Physical Appearance: Clear liquid
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.44 (Dichloromethane:Methanol [9:1])
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

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

Product Name: ABS 205

Catalog No.: 2721

Batch No.: 1

CAS Number: 24102-11-2

IUPAC Name: 2-Propyl-4-pentynoic acid

Description:

Orally active valproic acid (Cat No. 2815) derivative that exhibits teratogenic and neuroprotective activity. Upregulates neural cell adhesion molecule (NCAM) expression, activates PPAR δ (IC₅₀ = 0.6 mM) and increases Hoxa1 expression in rat embryos. Antiproliferative; induces G₁ cell cycle arrest in C6 glioma cells (IC₅₀ ~ 2 mM).

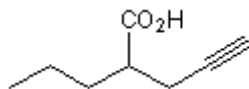
Physical and Chemical Properties:

Batch Molecular Formula: C₈H₁₂O₂

Batch Molecular Weight: 140.18

Physical Appearance: Clear liquid

Batch Molecular Structure:



Storage: Store at +4°C

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:

Bacon et al (1998) Cell proliferation, migration and CAM-dependent neurite outgrowth as developmental *in vitro* endpoints for screening teratogenic potential: application to valproic acid and related analogues of varying potency. *Toxicol.In Vitro* **12** 101. PMID: 20654391.

Lampen et al (2005) Modulation of peroxisome proliferator-activated receptor δ activity affects neural cell adhesion molecule and polysialyltransferase ST8SialIV induction by teratogenic valproic acid analogs in F9 cell differentiation. *Mol.Pharmacol.* **68** 193. PMID: 15829700.

Stodgell et al (2006) Induction of the homeotic gene Hoxa1 through valproic acid's teratogenic mechanism of action. *Neurotoxicol.Teratol.* **28** 617. PMID: 16989981.

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