

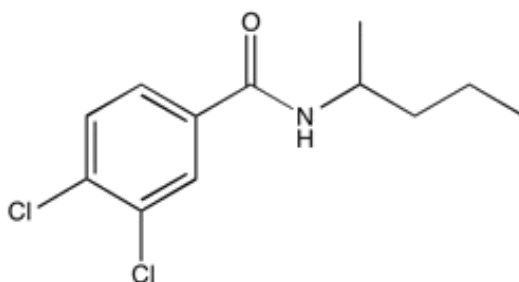
Catalog # 10-1462

NSC405020

CAS# 7497-07-6

3,4-Dichloro-N-(1-methylbutyl)benzamide

Lot # X105601



Membrane type-1 matrix metalloproteinase (MMP14 or MT1-MMP) inhibitor that prevents homodimerization and inhibits MMP14's protumorigenic activity *in vivo*. ($IC_{50} > 100 \mu M$). Inhibition is via interaction with the hemopexin domain (PEX) of MMP14. NSC-405020 does not interfere with the catalytic activity of MT1-MMP or MMP-2. Suppresses bone erosion in a c-Fos-deficient mouse model.² Decreases arsenic-mediated invasion of human squamous cell carcinoma HSC5 cells.³

- 1) Remacle *et al.* (2012), *Novel MT1-MMP small-molecule inhibitors based on insights into hemopexin domain function in tumor growth.*; *Cancer Res.*, **72** 2339
- 2) Kittaka *et al.* (2018) *Cherubism Mice Also Deficient in c-Fos Exhibit Inflammatory Bone Destruction Executed by Macrophages That Express MMP14 Despite the Absence of TRAP+ Osteoclasts* ; *J. Bone Miner. Res.*, **33** 167
- 3) Thang *et al.* (2014) *Bidirectional functions of arsenic as a carcinogen and an anti-cancer agent in human squamous cell carcinoma*; *PLoS One*, **9(5)** e96945

PHYSICAL DATA

Molecular Weight:	260.15
Molecular Formula:	C ₁₂ H ₁₅ NC _l ₂ O
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml), or Ethanol (up to 25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied, desiccated at room temperature for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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