

Product Name: VU 0546110

Catalog No.: 7956

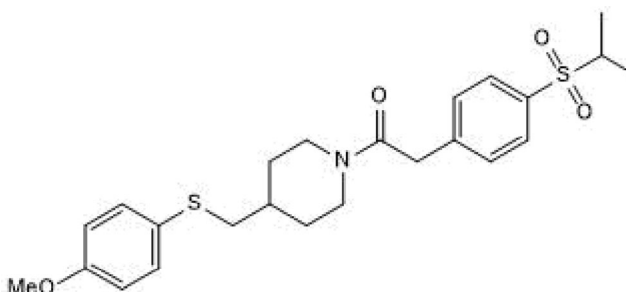
Batch No.: 1

CAS Number: 1421523-00-3

IUPAC Name: 1-[4-[[4-Methoxyphenyl]thio]methyl]-1-piperidinyl]-2-[4-[(1-methylethyl)sulfonyl]phenyl]ethanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₃₁NO₄S₂
Batch Molecular Weight: 461.64
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.44	6.77	3.03
Found	62.24	6.81	3.04

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

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Description:

VU 0546110 is a selective inhibitor of the sperm-specific potassium channel SLO3 (IC₅₀ = 64 μM). It shows 40-fold selectivity over SLO1. It completely blocks heterologous SLO3 currents and endogenous K⁺ currents. VU 0546110 inhibits sperm hyperpolarisation and prevents its hyperactivated mobility.

Physical and Chemical Properties:

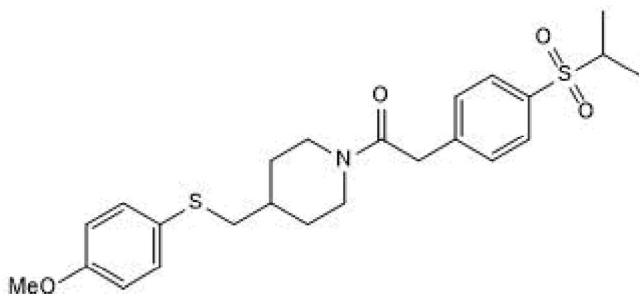
Batch Molecular Formula: C₂₄H₃₁NO₄S₂

Batch Molecular Weight: 461.64

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Lyon *et al* (2023) A selective inhibitor of the sperm-specific potassium channel SLO3 impairs human sperm function. Proc.Natl.Acad.Sci.U.S.A. **120** e2212338120. PMID: 36649421.

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