

Certificate of Analysis

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Product Name: GW 311616 hydrochloride

Catalog No.: 1959

Batch No.: 1

CAS Number: 198062-54-3

IUPAC Name: (3*S*,3*aS*,6*aR*)-Hexahydro-3-(1-methylethyl)-1-(methylsulfonyl)-4-[(2*E*)-1-oxo-4-(1-piperidinyl)-2-butenyl]pyrrolo[3,2-*b*]pyrrol-2(1*H*)-one hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₃₁N₃O₄S.HCl

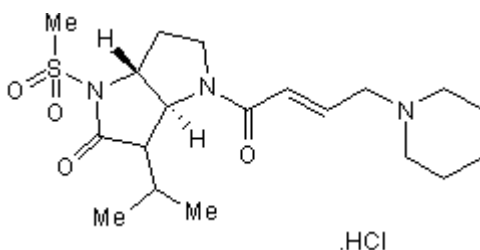
Batch Molecular Weight: 433.99

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.22 (Dichloromethane:Methanol [9:1])

Melting Point: At 236°C

HPLC: Shows >98.4% purity

¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.58	7.43	9.68
Found	52.31	7.52	9.6

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

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Description:

Potent and selective inhibitor of human leukocyte elastase (HLE) (IC₅₀ = 22 nM); displays > 4500-fold selectivity over other human serine proteases. Orally active in vivo.

Physical and Chemical Properties:

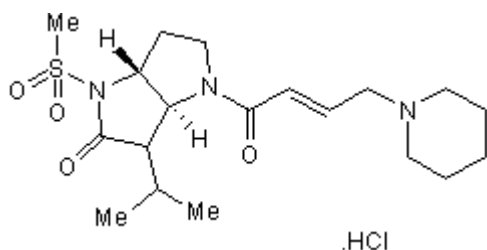
Batch Molecular Formula: C₁₉H₃₁N₃O₄S.HCl

Batch Molecular Weight: 433.99

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Macdonald et al (2001) The discovery of a potent, intracellular, orally bioavailable, long duration inhibitor of human neutrophil elastase - GW311616A a development candidate. *Bioorg.Med.Chem.Lett.* **11** 895. PMID: 11294386.

Ohbayashi (2002) Neutrophil elastase inhibitors as treatment for COPD. *Exp.Opin.Investig.Drugs* **11** 965. PMID: 12084007.

Storage: Store at RT

Solubility & Usage Info:

water 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.

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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