



## Certificate of Analysis

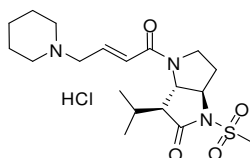
**Axon Catalogue ID:** 2364 **Batch Number:** 2

**Product Name:** GW 311616A

**Alternative Name(s):** GW 311616 hydrochloride

**IUPAC Name:** (3S,3aS,6aR)-3-Isopropyl-1-(methylsulfonyl)-4-((E)-4-(piperidin-1-yl)but-2-enyl)hexahydropyrrolo[3,2-b]pyrrol-2(1H)-one hydrochloride

**Structure:**



**Amount:**

**CAS number(s):** 198062-54-3 (parent), 197890-44-1 (HCl (1:1))

**Molecular Formula:** C<sub>19</sub>H<sub>31</sub>N<sub>3</sub>O<sub>4</sub>S.HCl **Molecular Weight:** 433.99

**Batch Molecular Formula:** C<sub>19</sub>H<sub>31</sub>N<sub>3</sub>O<sub>4</sub>S.HCl.0.75H<sub>2</sub>O **Batch Molecular Weight:** 447.50

**Appearance:** White solid **Observed mp:** 135 - 145 °C

**TLC (R<sub>f</sub>):** 0.56 DCM/MeOH/NH<sub>3</sub> (20:1:0.1)

**Chemical Purity:** 99.2%

**Optical Purity (ee):** Optically pure

**Optical Rotation (Det.):** [α]<sub>D</sub> = +50.0° with c = 0.5 in MeOH

**<sup>1</sup>H-NMR:** Analytical data confirm chemical structure

**Mass Spec:** Analytical data confirm chemical structure

**Microanalysis:** Calculated: C 50.99, H 7.55, N 9.39; Found: C 51.04, H 7.84, N 9.27

**Storage Conditions:** Store at +4 °C

Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
Water	44.8	>100 mM	
0.1N NaOH (aq)			Not Tested
0.1N HCl (aq)			Not Tested
DMSO	44.8	>100 mM	
EtOH			Not Tested

**Remarks:**

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to [info@axonmedchem.com](mailto:info@axonmedchem.com) indicating Catalogue ID and Batch number.

**Caution: Not fully tested. For research purposes only**