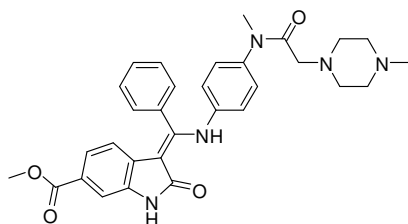




## Certificate of Analysis

**Axon Catalogue ID:** 2648 **Batch Number:** 2  
**Product Name:** Nintedanib  
**Alternative Name(s):** BIBF-1120  
**IUPAC Name:** (Z)-Methyl 3-((4-(N-methyl-2-(4-methylpiperazin-1-yl)acetamido)phenylamino)(phenyl)methylene)-2-oxoindoline-6-carboxylate

**Structure:**



**Amount:**

**CAS number(s):** 656247-17-5  
**Molecular Formula:** C<sub>31</sub>H<sub>33</sub>N<sub>5</sub>O<sub>4</sub> **Molecular Weight:** 539.62  
**Batch Molecular Formula:** C<sub>31</sub>H<sub>33</sub>N<sub>5</sub>O<sub>4</sub> **Batch Molecular Weight:** 539.62  
**Appearance:** Yellow solid **Observed mp:** 249.6 - 251.4 °C  
**TLC (R<sub>f</sub>):** 0.2 DCM/MeOH (9:1)  
**Chemical Purity:** 99.9%  
**Optical Purity (ee):** N.A.  
**<sup>1</sup>H-NMR (300 MHz):** Analytical data confirm chemical structure  
**Mass Spec:** Analytical data confirm chemical structure  
**Microanalysis:** Calculated: C 69.00, H 6.16, N 12.98; Found: C 68.92, H 6.15, N 13.01  
**Storage Conditions:** Store at +4 °C

Solubility Data:	Solvent	Solubility		Remarks
		(mg/ml)	(mM)	
	Water	0.0	0.0	Insoluble
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)	15.0	27.8	
	DMSO	7.3	13.4	
	EtOH			Not Tested

**Remarks:**

**QC Date:** 11-10-2019

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**