



# Certificate of analysis

Product name: Idelalisib, CAL-101

Cas number:870281-82-6

Molecular Formula: C<sub>22</sub>H<sub>18</sub>FN<sub>7</sub>O

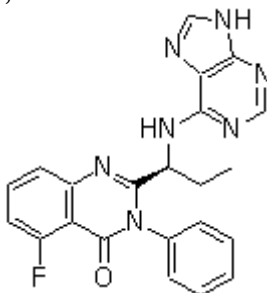
Molecular Weight: 415.42

Date of production:Jan. 19, 2018

Batch NO:20180119

Exp Date:Jan. 18, 2020

Chemical structure:



Items	Specifications	Results
Appearance	off-white color powder	off-white color powder
Identification	NMR HPLC	Conform
Residue Solvent	Ethanol ≤ 5000ppm	Conform
	Toluene ≤ 890ppm	Conform
	Ethyl acetate ≤ 5000ppm	Conform
	DCM ≤ 600ppm	Conform
	Acetonitrile: ≤ 410ppm	Conform
Assay	99.0% min	99.80%
EE	99% MIN	99.7%
Water	2.0% max	0.22%
Totle impurites	1.0% max	0.20%
Single impurity	0.1% max	0.09%
Heavy Metals	20ppm max	Conform

**Conclusion: It complies with the Enterprise Standard.**

Analyst:Zhao

Checker:Liu

Q.C Director: Fang

