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Document: COA-SAMPLE

CERTIFICATE OF ANALYSIS

PTD-DBM

Product name	**PTD-DBM**	Molecular formula	**$C_{124}H_{223}N_{61}O_{28}S_2$**
Batch number	**-**	Molecular weight	**3080.7 g/mol**
CAS number	**1609454-11-6**	Quantity	**5 mg**
Date of manufacture	**-**	PubChem CID	**N/A**
Storage	**Powder: −20°C 3 years; 4°C 2 years; 15°C 3 months.**	Storage	**In solvent: −80°C 6 months; −20°C 1 month; 10°C 1 week**

Amino acid sequence

H–Pro–Thr–Asp (TAT) + Dishevelled-binding motif (CXXC5/Dvl inhibitor)

24 (confirm) residues

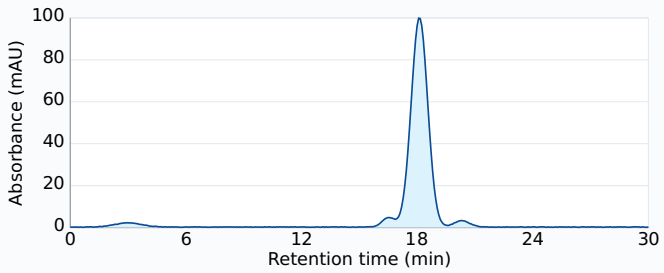
Analytical results

Test parameter	Method	Specification	Result	Status
Appearance	Visual	White to off-white powder	**Conforms**	✓
Peptide purity	RP-HPLC (C18)	≥ 98.0%	**98.80%**	✓
Molecular weight confirmation	ESI-MS	3080.7 ± 1.0 Da	**Conforms**	✓
Water content	Karl Fischer	≤ 10.0%	**5.8%**	✓
Counter-ion content	HPLC	Acetate salt (report)	**4.9% (acetate)**	✓
Total related substances	RP-HPLC	≤ 2.0%	**1.2%**	✓
Largest single impurity	RP-HPLC	≤ 1.0%	**0.5%**	✓
Residual solvent — Acetonitrile	GC-HS	≤ 410 ppm	**< 410 ppm**	✓
Residual solvent — DCM	GC-HS	≤ 600 ppm	**< 600 ppm**	✓
Residual solvent — DMF	GC-HS	≤ 880 ppm	**< 880 ppm**	✓
Bacterial endotoxins	LAL kinetic turbidimetric	< 5 EU/mg	**< 0.5 EU/mg**	✓
Bioburden	USP <61>	< 100 CFU/g (USP <61>)	**< 10 CFU/g**	✓

HPLC chromatogram

RP-HPLC C18

UV detection at 220 nm — gradient 10–70% ACN in 0.1% TFA over 30 min — flow 1.0 mL/min

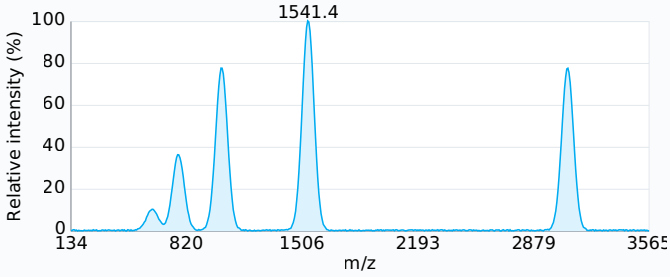


Main peak RT **18.12 min** · Area **98.80%** · Largest imp 0.5% · Total related 1.2%

Mass spectrum

ESI-MS positive

Electrospray ionisation — positive mode



Observed **[M+2H]2+ 1541.4** · MW **3080.7 g/mol**

✓ **Overall result: Conforms to specification**