



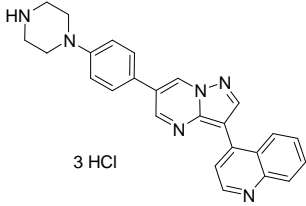
Certificate of Analysis

Axon Catalogue ID: 1509 **Batch Number:** 5

Product Name: LDN 193189 trihydrochloride

Alternative Name(s): DM 3189

IUPAC Name: 4-[6-(4-Piperazin-1-yl-phenyl)-pyrazolo[1,5-a]pyrimidin-3-yl]-quinoline trihydrochloride

Structure:  **Amount:**

CAS number: 1062368-24-4 (parent) **MW:** 515.87

Batch Molecular Formula: C₂₅H₂₂N₆·3HCl · 1.75H₂O **Batch MW:** 547.39

Appearance: Orange-red solid **Observed mp:** >232 °C

TLC (R_f): 0.35 CHCl₃/MeOH (9:1)

Chemical Purity: 99.8%

Optical Purity (ee):

¹H-NMR (300 MHz): Analytical data confirm chemical structure

Mass Spec: Analytical data confirm chemical structure

Microanalysis: C, H, and N fit within 0,4% of theoretical calculation

Storage Conditions: Desiccate at +4°C

Solubility Data:

Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
Water	17	31	Directly Soluble
0.1N NaOH (aq)			Not Tested
0.1N HCl (aq)			Not Tested
DMSO	10	18	Need warming and ultrasone
EtOH			Not Tested

Remarks: Microanalysis: Calcd. C 54.84, H 5.25, N 15.35; Found: 55.03, H 5.23, N 15.05.

QC Date: 4/20/2011

The purity of Axon products 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 indicating Axon Catalogue ID and Batch number.

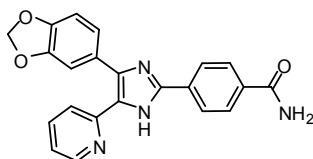
Caution: Not fully tested. For research purposes only



Certificate of Analysis

Axon Catalogue ID: 1661 **Batch Number:** 5
Product Name: SB 431542
Alternative Name(s): N.A.
IUPAC Name: 4-(4-(benzo[d][1,3]dioxol-5-yl)-5-(pyridin-2-yl)-1H-imidazol-2-yl)benzamide

Structure:



Amount:

CAS number: 301836-41-9
Batch Molecular Formula: C₂₂H₁₆N₄O₃ · 1.75H₂O **Batch MW:** 415.91
Appearance: White solid **Observed mp:** 152 - 154 °C
TLC (R_f): 0.35 DCM/MeOH (9:1)
Chemical Purity: 100.0%
Optical Purity (ee):
¹H-NMR (300 MHz): Analytical data confirm chemical structure
Mass Spec: Analytical data confirm chemical structure
Microanalysis: Calculated: C 63.53 , H 4.73 , N 13.47 Found: C 63.38 , H 4.49 , N 13.41
Storage Conditions: Store at +4 °C

Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water	0.0	0.0	Insoluble
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	38.4	>100 mM	
	EtOH			Not Tested

Remarks:

QC Date: 6-5-2014

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 indicating Catalogue ID and Batch number.

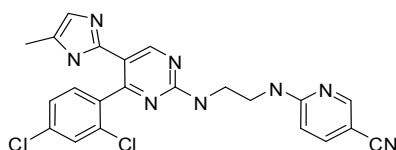
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Certificate of Analysis

Axon Catalogue ID: 1386 **Batch Number:** 8
Product Name: CHIR 99021
Alternative Name(s): CT 99021
IUPAC Name: 3-Pyridinecarbonitrile, 6-[[2-[[4-(2,4-dichlorophenyl)-5-(5-methyl-1H-imidazol-2-yl)-2-pyrimidinyl]amino]ethyl]amino]-

Structure:



Amount:

CAS number: 252917-06-9
Batch Molecular Formula: C₂₂H₁₈Cl₂N₈ **Batch MW:** 465.35
Appearance: Off-white solid **Observed mp:** >255 °C (decomp)
TLC (R_f): 0.6 EtOAc/THF (1:1)
Chemical Purity: 99.1%
Optical Purity (ee):
¹H-NMR (300 MHz): Analytical data confirm chemical structure
Mass Spec: Analytical data confirm chemical structure
Microanalysis: Calculated: C 56.78 , H 3.90 , N 24.07 Found: C 56.65 , H 3.70 , N 24.14
Storage Conditions: Store at -20°C

Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water	0.0	0.0	Insoluble
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	25.0	53.7	Requires warming
	EtOH			Not Tested

Remarks:

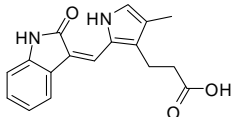
QC Date: 4-2-2014

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 indicating Catalogue ID and Batch number.

Caution: Not fully tested. For research purposes only



Certificate of Analysis

Axon Catalogue ID:	1667	Batch Number:	2	
Product Name:	SU 5402			
Alternative Name(s):	N.A.			
IUPAC Name:	3-(4-Methyl-2-((2-oxoindolin-3-ylidene)methyl)-1H-pyrrol-3-yl)propanoic acid			
Structure:			Amount:	
				
CAS number:	215543-92-3			
Batch Molecular Formula:	C ₁₇ H ₁₆ N ₂ O ₃	Batch MW:	296.32	
Appearance:	Orange Brown Solid	Observed m.p.:	218.9-220.1°C	
TLC (R_f):	0.35 9:1 DCM/Methanol			
Chemical Purity:	99.3%	Wavelength for purity check:	274 nm	
Optical Purity (ee):				
¹H-NMR (300 MHz):	Analytical data confirm chemical structure			
Mass Spec:	Analytical data confirm chemical structure			
Microanalysis:	Not available			
Storage Conditions:	Desiccate at	<4°C		
Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water			Insoluble
	1eq. NaOH	13.30	44.88	Soluble
	1eq. HCl			Not Tested
	DMSO	44.00	148.49	Very Soluble
	EtOH			Not Tested
Remarks:				
Quality controller:	M. Brandsma, MSc.	Date:	10/25/2011	

The purity of Axon products 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 indicating Axon Catalogue ID and Batch number.

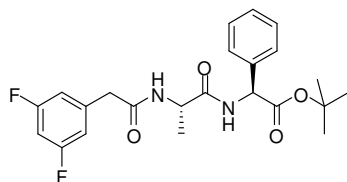
Caution: Not fully tested. For research purposes only



Certificate of Analysis

Axon Catalogue ID: 1484 **Batch Number:** 1
Product Name: DAPT
Alternative Name(s): N.A.
IUPAC Name: (S)-tert-butyl 2-((S)-2-(2-(3,5-difluorophenyl)acetamido)propanamido)-2-phenylacetate

Structure:



Amount:

CAS number: 208255-80-5
Batch Molecular Formula: C₂₃H₂₆F₂N₂O₄ **Batch MW:** 432.46
Appearance: White solid **Observed mp:** 143 - 144 °C
TLC (R_f): 0.6 DCM/MeOH (9:1)
Chemical Purity: >99%
Optical Purity (ee):
¹H-NMR (300 MHz): Analytical data confirm chemical structure
Mass Spec: Analytical data confirm chemical structure
Microanalysis: Calculated: C 63.88 , H 6.06 , N 6.48 Found: C ND , H ND , N ND
Storage Conditions: Store at +4 °C

Solubility Data:	Solvent	Solubility (mg/ml)	Solubility (mM)	Remarks
	Water			Not Tested
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	43.2	>100 mM	
	EtOH			Not Tested

Remarks:

QC Date: 24-02-2010

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 indicating Catalogue ID and Batch number.

Caution: Not fully tested. For research purposes only