TOCRIS
a bio-techne brand

Print Date: Feb 14th 2022

Certificate of Analysis

www.tocris.com

Product Name: **Darunavir** **Catalog No.: 6710** **Batch No.: 1**

CAS Number: 206361-99-1

IUPAC Name: (3*R*,3a*S*,6a*R*)-Hexahydrofuro[2,3-*b*]furan-3-yl *N*-[(1*S*,2*R*)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]carbamate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{27}H_{37}N_3O_7S.¼H_2O$

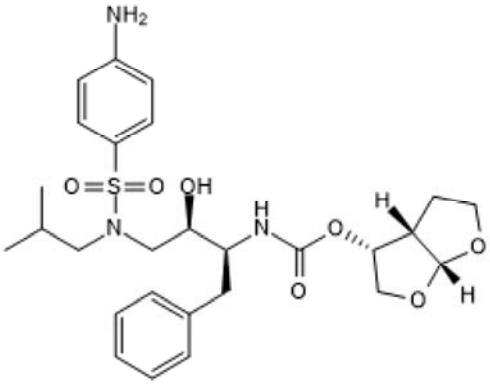
Batch Molecular Weight: 552.16

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.73	6.85	7.61
Found	58.68	6.84	7.62

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **Darunavir** **Catalog No.: 6710** **Batch No.: 1**

CAS Number: 206361-99-1

IUPAC Name: (3*R*,3a*S*,6a*R*)-Hexahydrofuro[2,3-*b*]furan-3-yl *N*-[(1*S*,2*R*)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]carbamate

Description:

Darunavir is a highly potent HIV protease inhibitor (IC_{50} = 3 - 6 nM, depending on laboratory HIV-1 strain). Displays activity in cells infected with clinical HIV-1 strains shown to have resistance to other protease inhibitors. Tocris products are for biomedical research use only. They are not intended for human or veterinary use.

Physical and Chemical Properties:

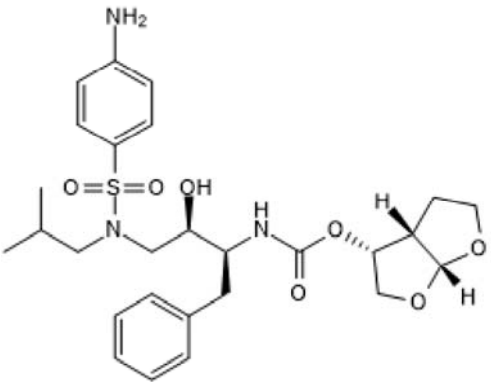
Batch Molecular Formula: $C_{27}H_{37}N_3O_7S.¼H_2O$

Batch Molecular Weight: 552.16

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Koh *et al* (2003) Novel *bis*-tetrahydrofuranylurethane-containing nonpeptidic protease inhibitor (PI) UIC-94017 (TMC114) with potent activity against multi-PI-resistant human immunodeficiency virus *in vitro*. Antimicrob.Agents Chemother. ***47*** 3123. PMID: 14506019.

Ghosh *et al* (1998) Potent HIV protease inhibitors incorporating high-affinity P_2-ligands and (*R*)-(hydroxyethylamino)sulfonamide isostere. Bioorg.Med.Chem.Lett. ***8*** 687. PMID: 9871583.

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956