Print Date: Dec 7th 2021

Certificate of Analysis

www.tocris.com

Product Name: **GW 6471** **Catalog No.: 4618** **Batch No.: 7**

CAS Number: 880635-03-0

IUPAC Name: *N*-((2*S*)-2-(((1*Z*)-1-Methyl-3-oxo-3-(4-(trifluoromethyl)phenyl)prop-1-enyl)amino)-3-(4-(2-(5-methyl-2-phenyl-1,3-oxazol-4-yl)ethoxy)phenyl)propyl)propanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{35}H_{36}F_3N_3O_4$

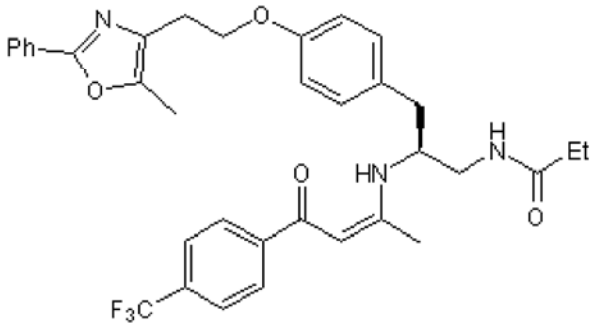
Batch Molecular Weight: 619.67

Physical Appearance: Cream solid

Solubility: DMSO to 75 mM
ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.0% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -267 (Concentration = 0.5, Solvent = Chloroform)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.84	5.86	6.78
Found	67.74	5.85	6.88

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Description:

GW 6471 is a PPARα antagonist (IC_{50} = 0.24 μM). GW 6471 enhances the binding affinity of the PPARα ligand-binding domain to the co-repressor proteins SMRT and NCoR. GW 6471 blocks SARS-CoV-2 infection in airway organoids (EC_{50} = 2.1 μM) by blocking and downregulating the hypoxia inducible factor 1 subunit alpha (HIF1α) and HIF1 pathway; also reduces viral RNA. GW 6471 induces apoptosis and cell cycle arrest in kidney cancer cells.

Physical and Chemical Properties:

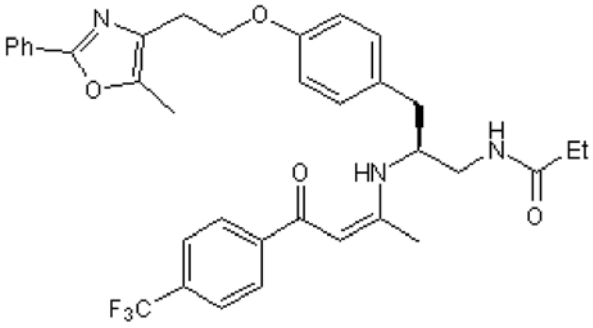
Batch Molecular Formula: $C_{35}H_{36}F_3N_3O_4$

Batch Molecular Weight: 619.67

Physical Appearance: Cream solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 75 mM
ethanol to 10 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.

Licensing Information:

Sold with the permission of GlaxoSmithKline.

References:

Duan *et al* (2021) An airway organoid-based screen identifies a role for the HIF1α-glycolysis axis in SARS-CoV-2 infection. Cell Rep. ***37***. PMID: 34731648.

Aboud *et al* (2013) Inhibition of PPARα induces cell cycle arrest and apoptosis, and synergizes with glycolysis inhibition in kidney cancer cells. PLoS One ***8***. PMID: 23951092.

Muller *et al* (2009) An innovative method to study target protein-drug interactions by mass spectrometry. J.Med.Chem. ***52*** 2875. PMID: 19379014.