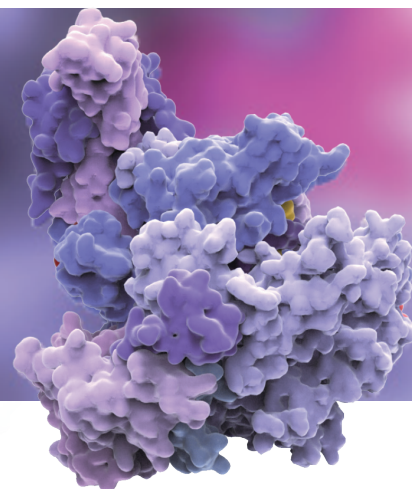


# New Products

September 2021



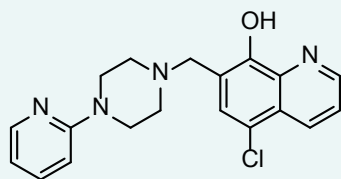
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CAS No.: 315698-36-3

**MLS1547**

**Research Area: Dopamine Receptor/ Neurological Disease**



- Highly efficacious **G protein-biased dopamine D2 receptor (D2R)** agonist ( $K_i=1.2 \mu\text{M}$ ).
- Stimulates D2R G protein-mediated signaling ( $\text{EC}_{50}=0.37 \mu\text{M}$  in a calcium mobilization assay) and acts as an antagonist for dopamine (DA)-stimulated  $\beta$ -arrestin recruitment to the D2R.

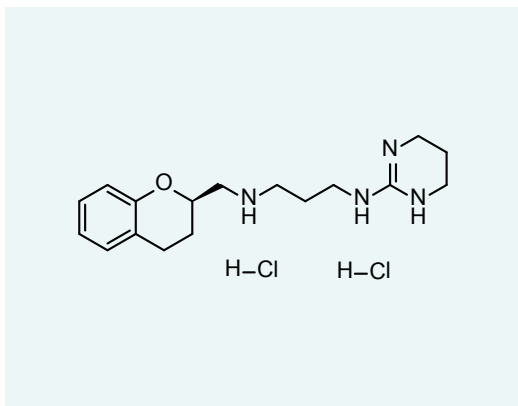
**Solubility:** DMSO : 50 mg/mL (140.91 mM; Need ultrasonic)

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CAS No.: 155428-00-5

### Alniditan dihydrochloride

**Research Area: 5-HT Receptor/Migraine**



- Potent **5-HT<sub>1B</sub>** and **5-HT<sub>1D</sub>** receptors agonist with **IC<sub>50</sub>S** of 1.7 nM and 1.3 nM for h5-HT<sub>1B</sub> and 5-HT<sub>1D</sub> receptors, respectively.
- Has migraine-preventive effects.

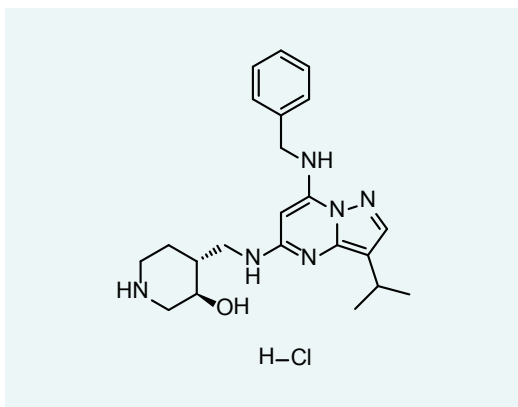
**Solubility:** DMSO : 62.5 mg/mL (166.52 mM; Need ultrasonic)

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CAS No.: 1805789-54-1

### Samuraciclib hydrochloride

**Research Area: CDK7 Inhibitor/Breast Cancer**



- Potent, selective, ATP-competitive and orally active **CDK7** inhibitor (**IC<sub>50</sub>**=41 nM).
- Displays 45-, 15-, 230- and 30-fold selectivity over CDK1, CDK2, CDK5 and CDK9, respectively.
- Inhibits the growth of breast cancer cell lines with **GI<sub>50</sub>** values between 0.2-0.3  $\mu$ M and induces **apoptosis**.

**Solubility:** DMSO : 100 mg/mL (232.03 mM; Need ultrasonic)

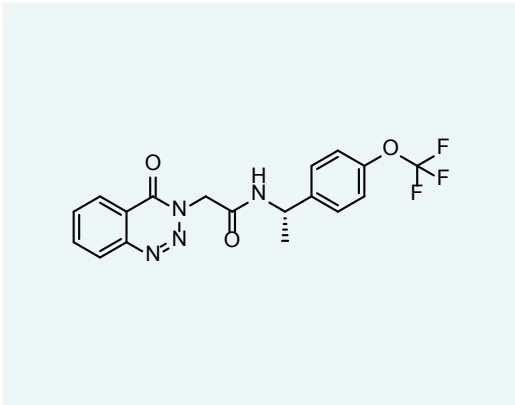
H<sub>2</sub>O : 55 mg/mL (127.62 mM; Need ultrasonic)

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CAS No.: 1929519-13-0

## TAK-041

### Research Area: GPR139/Schizophrenia



- Potent and selective **GPR139** agonist with an **EC<sub>50</sub>** of 22 nM.
- Has the potential for the research of negative symptoms associated with schizophrenia.

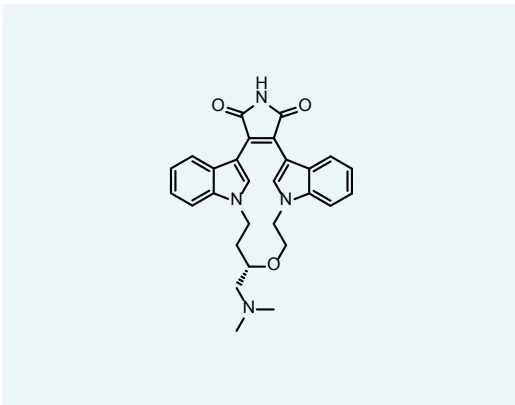
**Solubility:** DMSO : 100 mg/mL (254.89 mM; Need ultrasonic)

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CAS No.: 169939-94-0

## Ruboxistaurin

### Research Area: PKC/Diabetic Peripheral Neuropathy



- Orally active, selective **PKC beta** (PKC $\beta$ ) inhibitor ( $K_i=2$  nM) and inhibits the PKC beta I ( $IC_{50}=4.7$  nM) and PKC beta II ( $IC_{50}=5.9$  nM) isozymes.
- Exhibits ATP dependent competitive inhibition of PKC beta I and is selective for PKC in comparison to other ATP dependent kinases (protein kinase A, calcium calmodulin, casein kinase, src tyrosine kinase).

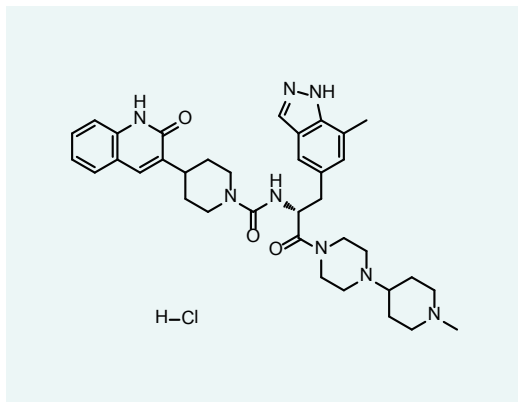
**Solubility:** DMSO : 50 mg/mL (106.71 mM; ultrasonic and warming to 60°C)

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CAS No.: 1414976-20-7

## Vazegepant hydrochloride

### Research Area: CGRP Receptor/Migraine/COVID-19



- High affinity antagonist of the **CGRP** receptor (hCGRP  $K_i=0.023$  nM) and the first intranasal gepant for migraine.
- Has the potential for the research of the COVID-19 associated pulmonary inflammation.

**Solubility:** DMSO : 50 mg/mL (74.05 mM; Need ultrasonic)

H<sub>2</sub>O : 50 mg/mL (74.05 mM; Need ultrasonic)

## Renilla-Firefly Luciferase Dual Assay Kit

MCE Renilla-Firefly Luciferase Dual Assay Kit contains high-purity D-Luciferin, coelenterazine and proprietary reaction buffer. This product is ideal for the detection of both Firefly luciferase and Renilla luciferase in mammalian cells.

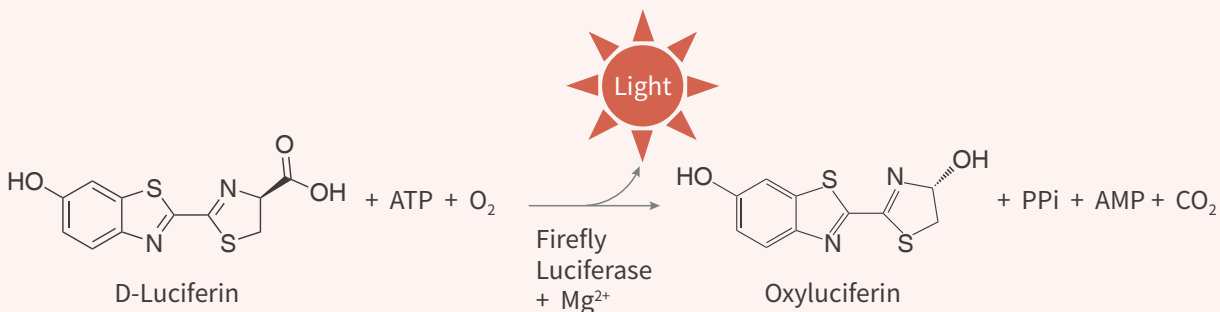


Figure 1. Chemical reaction of D-Luciferin and Firefly Luciferase.

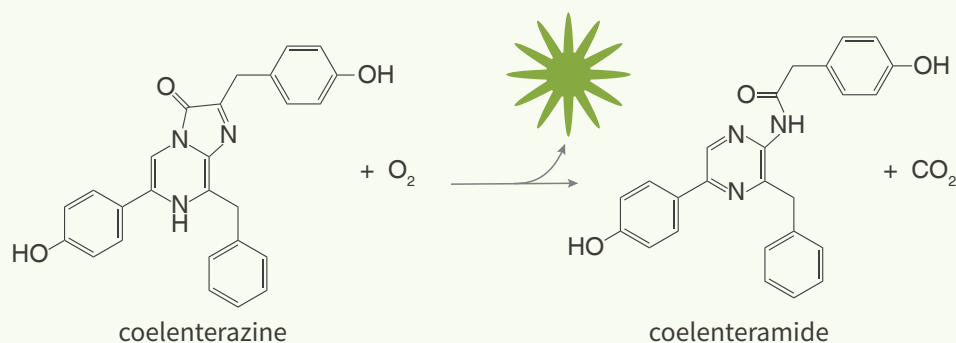


Figure 2. Chemical reaction of coelenterazine and Renilla Luciferase.

### Antibody-drug conjugate (ADC)

Antibody-drug conjugate (ADC), a chimeric or humanized monoclonal antibody tethered to a highly potent drug (payload) through a cleavable or non-cleavable linker, is an emerging novel class of anti-cancer drugs and has great potential to make a paradigm shift in cancer chemotherapy. The key factors to design antibody-drug conjugates are the rational selections of payload, linker or drug-linker conjugate, antibody, and conjugation strategy.

MCE can provide one-stop services for the design, synthesis, analysis, purification, optimization, detection and evaluation of 900+ ADC-related products (ADC Cytotoxin, ADC Linker, Drug-Linker Conjugates for ADC, and ADC).

Product Categories	Service Categories	Our Advantages
ADC Cytotoxin	Custom synthesis	Extensive product categories
ADC Linker	Conjugation service	Strong synthesis ability
Drug-linker Conjugate for ADC	Purification service	Innovation ability
Antibody-drug Conjugate (ADC)	Analysis service	Extensive cooperation

## Recent Publications Citing Use of MCE Products



**Nature.** 2021 Aug;596(7871):  
291-295.



**Science.** 2021 Jul 30;  
373(6554):547-555.

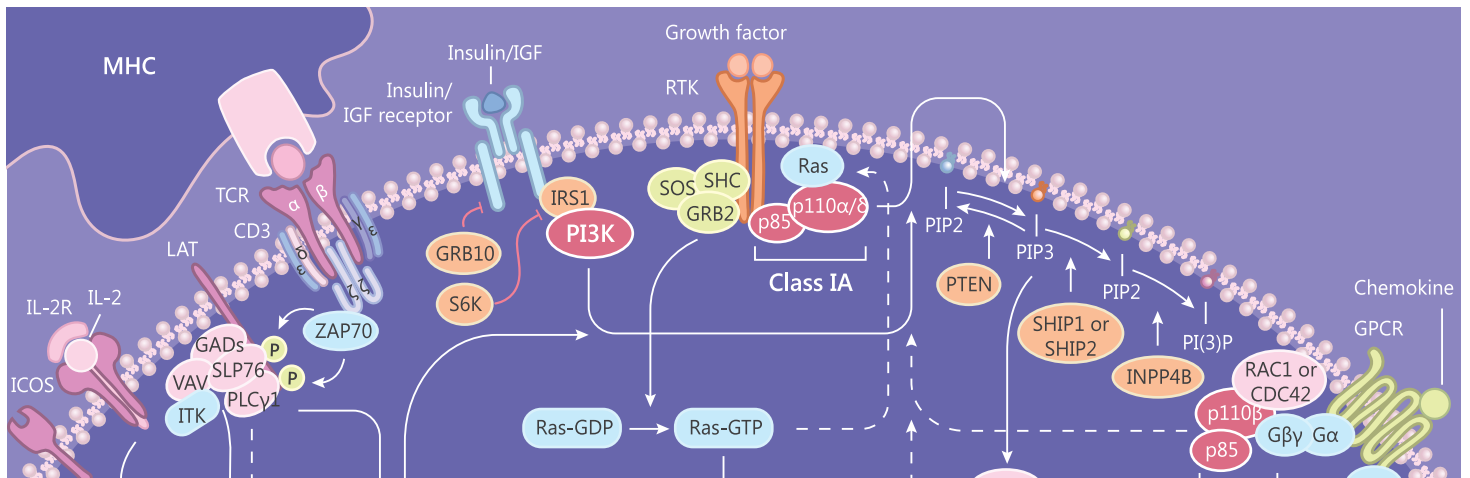


**Cell.** 2021 Jul 22;184(15):  
4032-4047.e31.



**Immunity.** 2021 Aug 10;54(8):  
1728-1744.e7.

## Cell Signaling Pathways



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