

# Certificate of Analysis

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**Product Name:** PD 0325901

**Catalog No.:** 4192

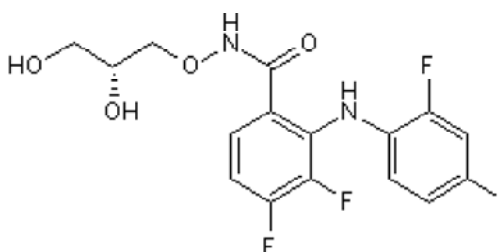
**Batch No.:** 4

CAS Number: 391210-10-9

IUPAC Name: *N*-[(2*R*)-2,3-Dihydroxypropoxy]-3,4-difluoro-2-[(2-fluoro-4-iodophenyl)amino]-benzamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>IN<sub>2</sub>O<sub>4</sub>  
**Batch Molecular Weight:** 482.19  
**Physical Appearance:** Off-white solid  
**Solubility:** DMSO to 25 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 100.0% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	39.85	2.93	5.81
Found	39.85	2.89	5.84

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

PD 0325901 is a potent MEK1 and MEK2 inhibitor. PD 0325901 inhibits MEK activity in mouse colon 26 cells (IC<sub>50</sub> = 0.33 nM). PD 0325901 inhibits the growth of melanoma cell lines in vitro and in vivo; induces G<sub>1</sub>-phase cell cycle arrest and apoptosis in a mouse xenograft model. PD 0325901 also inhibits production of proangiogenic cytokines such as VEGF. PD 0325901 enhances generation of induced pluripotent stem cells (iPSCs). PD 0325901 in combination with Vitamin C sustains mouse ES cells at an undifferentiated and hypomethylated state. PD 0325901 promotes myelin recovery in drug-induced demyelination in vivo in mice model. Orally active. F... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

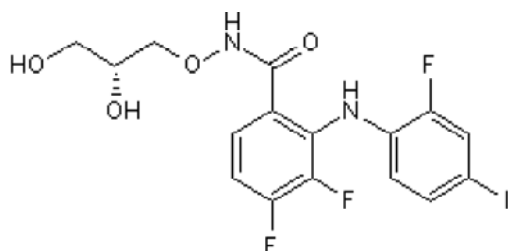
Batch Molecular Formula: C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>IN<sub>2</sub>O<sub>4</sub>

Batch Molecular Weight: 482.19

Physical Appearance: Off-white solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**References:**

Suo *et al* (2019) Inhibition of MAPK/ERK pathway promotes oligodendrocytes generation and recovery of demyelinating diseases. *Glia* **67** 1320. PMID: 30815939.

Li *et al* (2018) An alternative culture method to maintain genomic hypomethylation of mouse embryonic stem cells using MEK inhibitor PD0325901 and vitamin C. *J.Vis.Exp.* **136** 56391. PMID: 29912180.

Koehler *et al* (2014) 3D mouse embryonic stem cell culture for generating inner ear organoids. *Nat.Protoc.* **9** 1299. PMID: 24784820.

**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 25 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 for research purposes under agreement from Pfizer Inc.

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