## **Product Specification Sheet**

Product Name: PD0325901

Catalog Number: C7303-2 (powder)

C7303-2s (10 mM in DMSO)

Package Size: 2 mg

**Technical information:** 

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

CAS #: 391210-10-9

Molecular Weight: 482.19

Purity: >98%

Formulation: Off white solid

Solubility: Soluble in DMSO up to 50 mM

Chemical Name: N-[(2R)-2,3-Dihydroxypropoxy]-3,4-difluoro-2[(2-fluoro-4-

iodophenyl)amino]-benzamide

Storage: Store solid powder at 4°C desiccated;

Store DMSO solution at -20°C.

**Handling:** • For C7303-2 (powder), add 415 uL of DMSO to make 10 mM solution.

• For C7303-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.

Biological Activity: PD0325901 is the selective inhibitor of mitogen activated protein kinase

kinase (MEK or MAPKK) with  $IC_{50}$  about 1nM against activated MEK1 and MEK2. Its potency, solubility and effectiveness are all much better than CI-1040. Anticancer activity of PD0325901 has been demonstrated for a broad spectrum of human tumor xenografts. When using with GSK-3 $\beta$  inhibitor CHIR99021, PD0325901 could prevent cell differentiation and sustain ES

cell self-renewal.

**Reference:** 1. Barrett, S.D., et al. The discovery of the benzhydroxamate MEK inhibitors CI-1040 and PD 0325901. Bioorg. Med. Chem. Lett. (2008),

18: 6501-6504.

2. Judith S. Sebolt-Leopold et al. The biological profile of PD 0325901: A second generation analog of CI-1040 with improved pharmaceutical

potential. Proc Amer Assoc Cancer Res, Volume 45, 2004.

3. Tongxiang Lin, et al. A chemical platform for improved induction of

human iPSCs. Nature Methods 6, 805 - 808 (2009)

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