

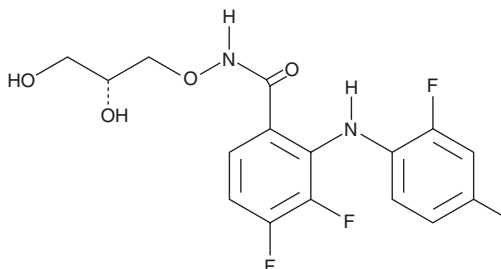
# PRODUCT INFORMATION



PD 0325901

Item No. 13034

**CAS Registry No.:** 391210-10-9  
**Formal Name:** N-[(2R)-2,3-dihydroxypropoxy]-3,4-difluoro-2-[(2-fluoro-4-iodophenyl)amino]-benzamide  
**MF:** C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>IN<sub>2</sub>O<sub>4</sub>  
**FW:** 482.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 238, 276, 313 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

PD 0325901 is supplied as a crystalline solid. A stock solution may be made by dissolving the PD 0325901 in the solvent of choice. PD 0325901 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PD 0325901 in ethanol is approximately 20 mg/ml and approximately 25 mg/ml in DMSO and DMF.

## Description

The dual specific threonine/tyrosine kinase MEK is a key component of the RAS/RAF/MEK/ERK signaling pathway that is frequently activated in human tumors.<sup>1,2</sup> PD 0325901 is a potent MEK inhibitor that suppresses phosphorylation of ERK in mouse colon 26 tumors with an IC<sub>50</sub> value of 0.33 nM.<sup>3</sup> Suppression of ERK activation with 1 μM PD 0325901 combined with 3 μM CHIR99021 (a glycogen synthase kinase 3 inhibitor) prevents cell differentiation and sustains self renewal of mouse embryonic stem cells for at least eight passages.<sup>4</sup>

## References

1. Vojtek, A.B. and Der, C.J. Increasing complexity of the Ras signaling pathway. *J. Biol. Chem.* **273**(32), 19925-19928 (1998).
2. Dorsam, R.T. and Gutkind, J.S. G-protein-coupled receptors and cancer. *Nat. Rev. Cancer* **7**(2), 79-94 (2007).
3. Barret, S.D., Bridges, A.J., Dudley, D.T., *et al.* The discovery of the benzhydroxamate MEK inhibitors CI-1040 and PD 0325901. *Bioorg. Med. Chem. Lett.* **18**(24), 6501-6504 (2008).
4. Ying, Q.L., Wray, J., Nichols, J., *et al.* The ground state of embryonic stem cell self-renewal. *Nature* **453**(7194), 519-523 (2008).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM