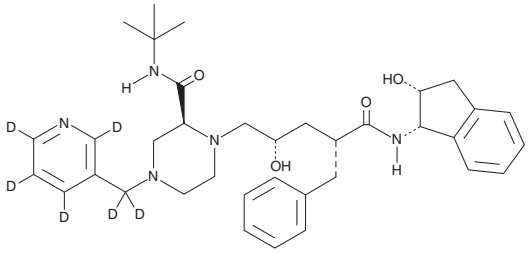
PRODUCT INFORMATION

Indinavir-d_6

Item No. 29585

CAS Registry No.: 185897-02-3
Formal Name: 2,3,5-trideoxy-N-[(1S,2R)-2,3-dihydro-2-hydroxy-1H-inden-1-yl]-5-[(2S)-2-[[(1,1-dimethylethyl)amino]carbonyl]-4-(3-pyridinyl-2,4,5,6-d_4-methyl-d_2)-1-piperazinyl]-2-(phenylmethyl)-D-*erythro*-pentonamide
Synonyms: L-735,524-d_6, MK-639-d_6
MF: $C_{36}H_{41}D_6N_5O_4$
FW: 619.8
Chemical Purity: ≥98% (Indinavir)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Indinavir-d_6 is intended for use as an internal standard for the quantification of indinavir (Item No. 15150) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Indinavir-d_6 is supplied as a solid. A stock solution may be made by dissolving the indinavir-d_6 in the solvent of choice, which should be purged with an inert gas. Indinavir-d_6 is soluble in organic solvents such as methanol, DMSO, and acetonitrile.

Description

Indinavir is an HIV-1 protease inhibitor (K_i = 0.358 nM).[1] It is selective for HIV-1 protease over HIV-2 protease (K_i = 3.316 nM), as well as human cathepsin D, porcine pepsin, bovine chymosin, human plasma renin, Factor Xa, and elastase at 10 µM. It is also selective for wild-type HIV-1 protease over the protease inhibitor-resistant mutants A-44, K-60, and V-18 (K_is = 0.24, 15, 50, and 40 nM, respectively).[2] Indinavir is active against multiple HIV-1 variants in cell-based assays (IC_{95}s = 12-100 nM).[1] Formulations containing indinavir have been used in combination with antiretroviral agents in the treatment of HIV infection.

References

1. Vacca, J.P., Dorsey, B.D., Schleif, W.A., *et al.* L-735,524: An orally bioavailable human immunodeficiency virus type 1 protease inhibitor. *Proc. Natl. Acad. Sci. U.S.A.* **91(9)**, 4096-4100 (1994).
2. Dorsey, B.D., McDonough, C., McDaniel, S.L., *et al.* Identification of MK-944a: A second clinical candidate from the hydroxylaminepentanamide isostere series of HIV protease inhibitors. *J. Med. Chem.* **43(18)**, 3386-3399 (2000).

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