

# PRODUCT INFORMATION



## Cabotegravir-d<sub>5</sub>

Item No. 31319

CAS Registry No.: 2750534-77-9

Formal Name: (3S,11aR)-N-[(2,4-difluorophenyl)methyl]-2,3,5,7,11,11a-hexahydro-6-hydroxy-3-methyl-d<sub>3</sub>-5,7-dioxo-oxazolo[3,2-a]pyrido[1,2-d]pyrazine-2,2-d<sub>2</sub>-8-carboxamide

MF: C<sub>19</sub>H<sub>12</sub>D<sub>5</sub>F<sub>2</sub>N<sub>3</sub>O<sub>5</sub>

FW: 410.4

Chemical Purity: ≥98% (Cabotegravir)

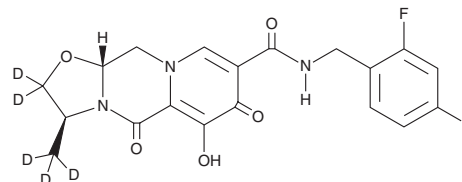
Deuterium

Incorporation: ≥99% deuterated forms (d<sub>1</sub>-d<sub>5</sub>); ≤1% d<sub>0</sub>

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

Cabotegravir-d<sub>5</sub> is intended for use as an internal standard for the quantification of cabotegravir (Item No. 27215) 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).

Cabotegravir-d<sub>5</sub> is supplied as a solid. A stock solution may be made by dissolving the cabotegravir-d<sub>5</sub> in the solvent of choice, which should be purged with an inert gas. Cabotegravir-d<sub>5</sub> is soluble in methanol and DMSO.

### Description

Cabotegravir is an inhibitor of HIV-1 integrase (IC<sub>50</sub> = 3 nM in a strand transfer assay).<sup>1</sup> It inhibits HIV replication in MT-4 cells and peripheral blood mononuclear cells (PBMCs; IC<sub>50</sub>s = 1.3 and 0.2 nM, respectively). Cabotegravir (50 mg/kg) is protective against simian/human immunodeficiency virus (SHIV) infection in macaques when administered 1 week prior to viral challenge.<sup>2</sup>

### References

1. Johns, B.A., Kawasuji, T., Weatherhead, J.G., *et al.* Carbamoyl pyridone HIV-1 integrase inhibitors 3. A diastereomeric approach to chiral nonracemic tricyclic ring systems and the discovery of dolutegravir (S/GSK1349572) and (S/GSK1265744). *J. Med. Chem.* **56**(14), 5901-5916 (2013).
2. Andrews, C.D., Spreen, W.R., Mohri, H., *et al.* Long-acting integrase inhibitor protects macaques from intrarectal simian/human immunodeficiency virus. *Science* **343**(6175), 1151-1154 (2014).

#### 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.

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