# PRODUCT INFORMATION



## Cinacalcet-d<sub>3</sub> (hydrochloride)

Item No. 25036

CAS Registry No.: 2749807-20-1

 $(\alpha R)-\alpha$ -(methyl-d<sub>3</sub>)-N-[3-[3-(trifluoromethyl) Formal Name:

phenyl|propyl|-1-naphthalenemethanamine,

monohydrochloride

Synonym: AMG 073-d<sub>3</sub>

MF: C<sub>22</sub>H<sub>19</sub>D<sub>3</sub>F<sub>3</sub>N • HCl

FW: 396.9

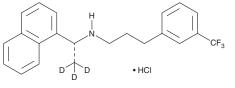
**Chemical Purity:** ≥98% (Cinacalcet)

Deuterium

Incorporation: ≥99% deuterated forms ( $d_1$ - $d_3$ ); ≤1%  $d_0$ 

Supplied as: A solid -20°C Storage: Stability: ≥4 years

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



### **Laboratory Procedures**

Cinacalcet-d<sub>3</sub> (hydrochloride) is intended for use as an internal standard for the quantification of cinacalcet (Item No. 16042) 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).

Cinacalcet-d<sub>3</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the cinacalcet-d<sub>3</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Cinacalcet-d<sub>3</sub> (hydrochloride) is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

#### Description

Cinacalcet is a calcimimetic and an allosteric agonist of the calcium-sensing receptor (CaSR; EC<sub>50</sub> = 79.4 nM in HEK293T cells expressing the human receptor). In vivo, cinacalcet (0.1-10 mg/kg, s.c.) decreases plasma levels of parathyroid hormone (PTH) in rats. It also decreases plasma levels of PTH and parathyroid cell proliferation in a mouse model of primary hyperparathyroidism.<sup>2</sup> Formulations containing cinacalcet have been used in the treatment of secondary hyperparathyroidism due to end-stage renal disease and hypercalcemia in patients with parathyroid carcinoma.

#### References

- 1. Ma, J.N., Owens, M., Gustafsson, M., et al. Characterization of highly efficacious allosteric agonists of the human calcium-sensing receptor. J. Pharmacol. Exp. Ther. 337(1), 275-284 (2011).
- Imanishi, Y., Kawata, T., Kenko, T., et al. Cinacalcet HCl suppresses Cyclin D1 oncogene-derived parathyroid cell proliferation in a murine model for primary hyperparathyroidism. Calcif. Tissue Int. 89(1), 29-35 (2011).

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

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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