

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

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# PRODUCT INFORMATION



## Moxidectin-d<sub>3</sub> Item No. 28766

Formal Name: (2R,2a'E,2a1'S,4Z,4'E,5S,6S,6'R,8'E,11'R,

> 15'S,17a'R,20'R,20a'R)-2a1',20'-dihydroxy-4-((methoxy-d<sub>2</sub>)imino)-5,6',8',19'-tetramethyl-6-((E)-4-methylpent-2-en-2-yl)-2a1',3,4,5,6, 6',7',10',11',14',15',17a',20',20a'-tetradecahydro-

2'H,17'H-spiro[pyran-2,13'-[11,15]

methano[1,5]dioxacyclooctadecino[9,8,7-cd]

benzofuran]-17'-one

CL-301423-d<sub>3</sub> Synonym: MF:  $C_{37}H_{50}D_3NO_8$ 

FW: 642.8

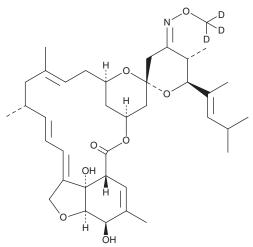
**Chemical Purity:** ≥98% (Moxidectin)

Deuterium

 $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>3</sub>);  $\leq$ 1% d<sub>0</sub> Incorporation:

Supplied as: -20°C Storage: Stability: ≥2 years

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



#### **Laboratory Procedures**

Moxidectin-d<sub>3</sub> is intended for use as an internal standard for the quantification of moxidectin (Item No. 17165) 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).

Moxidectin-d<sub>3</sub> is supplied as a solid. A stock solution may be made by dissolving the moxidectin-d<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. Moxidectin-d3 is soluble in organic solvents such as methanol and chloroform.

### Description

Moxidectin is a macrocyclic lactone endectocide and a derivative of nemadectin.<sup>1,2</sup> It reduces fecal nematode egg counts by 98.4 and 99.8% in naturally infected calves when administered subcutaneously at doses of 0.2 and 0.3 mg/kg, respectively.2 Moxidectin (0.2 and 0.3 mg/kg) reduces worm burden of O. ostertagi and T. axei in the abomasum, and Cooperia species and N. helvetianus in the small intestine, of naturally infected calves. It potentiates GABA-gated currents in Xenopus oocytes expressing rat  $\alpha_1\beta_2\gamma_2$ subunit-containing GABA<sub>A</sub> receptors with an EC<sub>50</sub> value of 11.8 nM.<sup>3</sup> Formulations containing moxidectin have been used in the treatment of onchocerciasis, as well as in the prevention and treatment of parasitic infections in veterinary medicine.

#### References

- 1. Kumar, A., Byun, H.S., Bittman, R., et al. Cell. Signal. 23(7), 1144-1152 (2011).
- 2. Ranjan, S., Trudeau, C., Prichard, R.K., et al. Vet. Parasitol. 41(3-4), 227-231 (1992).
- Ménez, C., Sutra, J.-F., Prichard, R., et al. PLoS Negl. Trop. Dis. 6(11), e1883 (2012).

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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