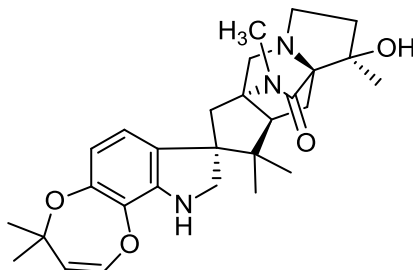


## Derquantel

Code No.: **BIA-D1514**

Pack sizes: **5 mg, 25 mg**



Synonyms : 2-Deoxoparahequamide, 2-Deoxoparahequamide A, 2-Desoxoparahequamide A, PF 00520904, PNU 141962

### Specifications

CAS # : **187865-22-1**  
Molecular Formula : **C<sub>28</sub>H<sub>37</sub>N<sub>3</sub>O<sub>4</sub>**  
Molecular Weight : **479.6**  
Source : **Semi-synthetic**  
Appearance : **White solid**  
Purity : **>98% by HPLC**  
Long Term Storage : **-20°C**  
Solubility : **Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.**

### Application Notes

Derquantel is a semi-synthetic paraherquamide analogue prepared by removal of the 2-oxo group in a four-step sequence of N-protection, reduction, N-deprotection and a final reduction. Derquantel is a potent nematocide and was the first paraherquamide to be successfully commercialised in combination with avermectin. Derquantel, like other paraherquamides, induces a flaccid paralysis in nematodes thought to be due to inhibition of nicotinic acetylcholine receptors acting as an antagonist of acetylcholine.

### References

1. Ligands of the nicotinic acetylcholine receptor as insecticides. Nauen R. et al. Pestic. Sci. 1999, 55, 608-610.
2. Semisynthesis of 2-deoxo- and 3-*epi*-paraherquamide A. Lee B.H. et al. Bioorg. Med. Chem. Lett. 2001, 11, 553-554.
3. Marcfortine and paraherquamide class of anthelmintics: Discovery of PNU-141962. Lee B.H. et al. Current Topics in Med. Chem. 2002, 2, 779.

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