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## DATASHEET

Aniracetam

### Product overview

|                          |   |
|--------------------------|---|
| <b>Name</b>              | Aniracetam  |
| <b>Cat No</b>            | HB0116  |
| <b>Biological action</b> | PAM   |
| <b>Purity</b>            | >98%  |
| <b>Description</b>       | Nootropic AMPA receptor positive allosteric modulator |

### Images



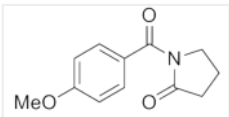
### Biological Data

|                               |  |
|-------------------------------|--|
| <b>Biological description</b> | Nootropic AMPA receptor positive allosteric modulator, reduces glutamate receptor desensitisation and AMPA receptor deactivation. Shows anxiolytic properties. |
|-------------------------------|--|

### Solubility & Handling

|                             |   |
|-----------------------------|---|
| <b>Storage instructions</b> | Room temperature  |
| <b>Solubility overview</b>  | Soluble in ethanol (25mM) or DMSO (100mM)   |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

### Chemical Data

|                           |   |
|---------------------------|---|
| <b>Chemical name</b>      | 1-(4-Methoxybenzoyl)-2-pyrrolidinone  |
| <b>Molecular Weight</b>   | 219.24  |
| <b>Chemical structure</b> |  |
| <b>Molecular Formula</b>  | C <sub>12</sub> H <sub>13</sub> NO <sub>3</sub>                                     |
| <b>CAS Number</b>         | 72432-10-1  |
| <b>PubChem identifier</b> | 2196  |
| <b>SMILES</b>             | O=C2CCCN2C(=O)c1ccc(OC)cc1  |
| <b>InChi</b>              | InChI=1S/C12H13NO3/c1-16-10-6-4-9(5-7-10)12(15)13-8-2-3-11(13)14/h4-7H,2-3,8H2,1H3  |

**InChiKey**  
**MDL number**  
**Appearance**

ZXNRTKGTQJPIJK-UHFFFAOYSA-N  
MFC00153767  
White solid

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## References

### **Anxiolytic effects of aniracetam in three different mouse models of anxiety and the underlying mechanism.**

Nakamura K *et al* (2001) *Eur J Pharmacol* 420(1)

**PubMedID** [11412837](#)

### **Aniracetam reduces glutamate receptor desensitization and slows the decay of fast excitatory synaptic currents in the hippocampus.**

Isaacson JS *et al* (1991) *Proc Natl Acad Sci U S A* 88(23)

**PubMedID** [1660156](#)

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