# AA29504

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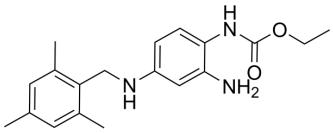
| **Cat. No.:** | HY-103522 |
| **CAS No.:** | 945828-50-2 |
| **Molecular Formula:** | $C_{19}H_{25}N_3O_2$ |
| **Molecular Weight:** | 327.42 |
| **Target:** | GABA Receptor |
| **Pathway:** | Membrane Transporter/Ion Channel; Neuronal Signaling |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

**Description**

AA29504 is a ethyl carbamate with γ-aminobutyric acid ($GABA_A$(HY-L120) receptor activity. AA29504 inhibits the delivery of the neurotransmitter gamma-aminobutyric acid in the central nervous system. AA29504 can be used to research anxiety, insomnia and other neuropsychiatric diseases [1].

**In Vitro**

AA29504 (0.1, 1, 10, 100 μM, 72 h) can open the Kv7 voltage-gated K+ channels (KCNQ) in Xenopus oocytes [1].
AA29504 (1 μM) positively regulates $GABA_A$ receptors expressed in Xenopus oocytes, $EC_{50}$1.4 μM[1] .
AA29504 (1 μM, 10 s) significantly enhances the gaboxadol-mediated current in pyramidal neurons of the prefrontal cortex[1] .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

AA29504 (0.5, 2 or 4 mg/kg, subcutaneously injection) has antianxiety effects in male SD (Spraguee Dawley) rats[1].
AA29504 (4 mg/kg, subcutaneous injection) significantly weakenes the motor coordination of male SD rats under the synergistic effect of alcohol [1].
AA29504 (2.5, 5 and 10 mg/kg, subcutaneously injection) has therapeutic effect on amygdala ignited seizures in male Wistar rats [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | Male Spraguee Dawley rats [1] |
| Dosage: | 0.5, 2 or 4 mg/kg |
| Administration: | Subcutaneous injections |
| Result: | Reduced the number of vocalizations at 4 mg/kg and reversed partially the freezing behavior at 2 mg/kg. |

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| Animal Model: | Male Spraguee Dawley rats [1] |
| Dosage: | 4 mg/kg |
| Administration: | Subcutaneous injections |
| Result: | Reduced the time the rats stayed on the rotarod at 4 mg/kg. |

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| Animal Model: | Male Wistar rats [1] |
| Dosage: | 10 mg/kg |
| Administration: | Subcutaneous injections |
| Result: | Reduced from 4.9 to 2.0 in amygdala kindled seizures response. |

## REFERENCES

[1]. Hoestgaard-Jensen K, et al. Pharmacological characterization of a novel positive modulator at alpha 4 beta 3 delta-containing extrasynaptic GABA(A) receptors. Neuropharmacology. 2010 Mar-Apr;58(4-5):702-11.



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