# AM404

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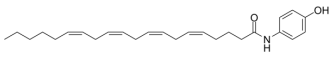
| **Cat. No.:** | HY-101388 |
| **CAS No.:** | 183718-77-6 |
| **Molecular Formula:** | $C_{26}H_{37}NO_2$ |
| **Molecular Weight:** | 395.58 |
| **Target:** | Others |
| **Pathway:** | Others |
| **Storage:** | Solution, -20°C, 2 years |



## BIOLOGICAL ACTIVITY

**Description**

AM404, an inhibitor of endocannabinoid reuptake, blocks anandamide transport with $IC_{50}$ values in the low micromolar range[1]. AM404 is able to relax rat isolated hepatic arteries contracted with Phenylephrine, with a $pEC_{50}$ value of 7.4 (corresponding to an $EC_{50}$ of 0.04 μM). Neuroprotective Effect[2].

**In Vitro**

AM404 reduces C6 glioma cell proliferation with $IC_{50}$ values of 4.9 μM. AM404 non-specifically inhibit C6 glioma cell proliferation at concentrations used to block the cellular accumulation of the endocannabinoid anandamide[2].

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

Cell Viability Assay[2]

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| Cell Line: | Rat C6 glioma cells |
| Concentration: | 1, 3, 10 and 30 μM |
| Incubation Time: | 24, 48, 72 and 96 h |
| Result: | Produced a concentration-dependent reduction in cell proliferation that was seen with 24 h of exposure to 10 and 30 μM concentrations and after 48 h at 3 μM. The lowest concentration of AM404 tested, 1 μM, produced a significant, albeit small, reduction in cell proliferation at 72 h. |

**In Vivo**

AM404 (1-5 mg/kg, i.p.) exerts dose-dependent anxiolytic-like effects in the three models: elevated plus maze, defensive withdrawal and separation-induced ultrasonic vocalizations.

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

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| Animal Model: | Adult male Sprague-Dawley rats (250-300 g)[2] |
| Dosage: | 2.5-10 mg/kg |
| Administration: | Intraperitoneal (i.p.) |
| Result: | Caused a dose-dependent increase in anandamide levels in prefrontal cortex, hippocampus and thalamus. |

## REFERENCES

[1]. A Giuffrida, et al. Mechanisms of endocannabinoid inactivation: biochemistry and pharmacology. J Pharmacol Exp Ther. 2001 Jul;298(1):7-14.

[2]. Kent-Olov Jonsson, et al. AM404 and VDM 11 non-specifically inhibit C6 glioma cell proliferation at concentrations used to block the cellular accumulation of the endocannabinoid anandamide. Arch Toxicol. 2003 Apr;77(4):201-7.

[3]. Marco Bortolato, et al. Anxiolytic-like properties of the anandamide transport inhibitor AM404. Neuropsychopharmacology. 2006 Dec;31(12):2652-9.



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