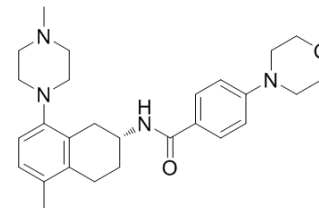


AR-A 2

Cat. No.:	HY-107018
CAS No.:	220051-79-6
Molecular Formula:	C ₂₇ H ₃₆ N ₄ O ₂
Molecular Weight:	448.6
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	AR-A 2 is a selective 5-HT _{1B} receptor antagonist, with high affinity to guinea pig cortex 5HT _{1B/1D} and recombinant guinea pig 5-HT _{1B} receptors (K _i =0.24 and 0.47 nM) and with 10-fold lower affinity to guinea pig 5-HT _{1D} receptor (K _i , 5 nM), and shows an EC ₅₀ of 4.5 nM for the guinea pig 5-HT _{1B} receptor; AR-A 2 can be used in the research of depression and anxiety.
IC₅₀ & Target	EC ₅₀ : 4.5 nM (guinea pig 5-HT _{1B} receptor) ^[1] K _i : 0.24 nM (guinea pig cortex 5HT _{1B/1D}), 0.47 nM (recombinant guinea pig 5-HT _{1B} receptor), 5 nM (guinea pig 5-HT _{1D} receptor), 20 nM (rat cortical 5HT _{1B/1D} receptor), 339 nM (rat cortex 5-HT _{2A} receptor), 3070 nM (Rat hippocampus 5-HT _{1A} receptor), 330 nM (dopamine D ₂), 490 nM (α ₁ -adrenoceptor) ^[1]
In Vitro	AR-A 2 (AR-A000002) is a selective 5-HT _{1B} receptor antagonist, with high affinity to guinea pig cortex 5HT _{1B/1D} and recombinant guinea pig 5-HT _{1B} receptors (K _i =0.24 and 0.47 nM) and with 10-fold lower affinity to guinea pig 5-HT _{1D} receptors (K _i , 5 nM), and shows an EC ₅₀ of 4.5 nM for the guinea pig 5-HT _{1B} receptor. AR-A 2 also binds to the rat cortical 5HT _{1B/1D} receptor (K _i , 20 nM), rat cortex 5-HT _{2A} receptor (K _i , 339 nM), rat hippocampus 5-HT _{1A} receptor (K _i , 3070 nM). In addition, AR-A 2 also exhibits affinity for dopamine D ₂ (K _i , 330 nM) and α ₁ -adrenoceptors (K _i , 490 nM) ^[1] .

REFERENCES

[1]. Ahlgren C, et al. In vitro characterization of AR-A000002, a novel 5-hydroxytryptamine(1B) autoreceptor antagonist. Eur J Pharmacol. 2004 Sep 19;499(1-2):67-75.

Caution: Product has not been fully validated for medical applications. For research use only.

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