

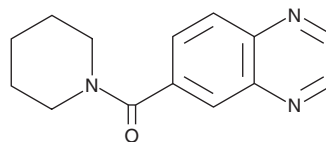
PRODUCT INFORMATION



CX-516

Item No. 14936

CAS Registry No.: 154235-83-3
Formal Name: 1-piperidinyl-6-quinoxalinyll-methanone
Synonyms: Ampalex, BDP-12, Benzoyl-Piperidine-12
MF: C₁₄H₁₅N₃O
FW: 241.3
Purity: ≥98%
UV/Vis.: λ_{max}: 203, 237, 319 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CX-516 is supplied as a crystalline solid. A stock solution may be made by dissolving the CX-516 in the solvent of choice, which should be purged with an inert gas. CX-516 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CX-516 in ethanol is approximately 10 mg/ml and approximately 50 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of CX-516 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of CX-516 in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

CX-516 is an AMPA receptor modulator.^{1,2} It increases the mean open time of AMPA receptors which increases the amplitude of trisynaptic responses to presynaptic stimulation in rat hippocampal slices. *In vivo*, CX-516 (10-50 mg/kg) accelerates acquisition of a conditioned fear response in rats in a dose-dependent manner.² It enhances performance in a spatial, delayed nonmatch-to-sample (DNMS) test in rats.³ CX-516 also reverses dominance between initially dominant and submissive rat pairs, a marker of antidepressant-like activity, in the rat reduction of submissive behavior model.⁴

References

1. Sirvio, J., Larson, J., Quach, C.N., *et al.* Effects of pharmacologically facilitating glutamatergic transmission in the trisynaptic intrahippocampal circuit. *Neuroscience* **74**(4), 1025-1035 (1996).
2. Rogan, M.T., Stäubli, U.V., and LeDoux, J.E. AMPA receptor facilitation accelerates fear learning without altering the level of conditioned fear acquired. *J. Neurosci.* **17**(15), 5928-5935 (1997).
3. Hampson, R.E., Rogers, G., Lynch, G., *et al.* Facilitative effects of the ampakine CX516 on short-term memory in rats: Enhancement of delayed-nonmatch-to-sample performance. *J. Neurosci.* **18**(7), 2740-2747 (1998).
4. Knapp, R.J., Goldenberg, R., Shuck, C., *et al.* Antidepressant activity of memory-enhancing drugs in the reduction of submissive behavior model. *Eur. J. Pharmacol.* **440**(1), 27-35 (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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