

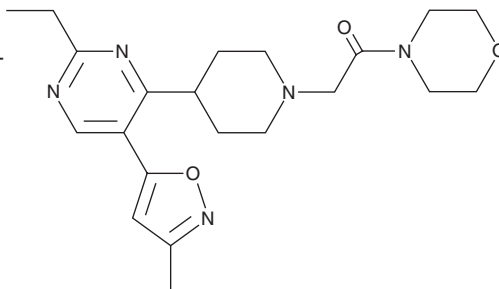
# PRODUCT INFORMATION



**WLB-89462**

Item No. 39736

**CAS Registry No.:** 2849471-75-4  
**Formal Name:** 2-[4-[2-ethyl-5-(3-methyl-5-isoxazolyl)-4-pyrimidinyl]-1-piperidinyl]-1-(4-morpholinyl)-ethanone  
**MF:** C<sub>21</sub>H<sub>29</sub>N<sub>5</sub>O<sub>3</sub>  
**FW:** 399.5  
**Purity:** ≥98%  
**Supplied as:** A 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

WLB-89462 is supplied as a solid. A stock solution may be made by dissolving the WLB-89462 in the solvent of choice, which should be purged with an inert gas. WLB-89462 is slightly soluble (0.1-1 mg/ml) in acetonitrile and sparingly soluble (1-10 mg/ml) in chloroform.

## Description

WLB-89462 is a ligand of sigma intracellular receptor 2 ( $\sigma_2$  receptor).<sup>1</sup> It selectively binds to the  $\sigma_2$  receptor ( $K_i$  = 13 nM) over the  $\sigma_1$  receptor ( $K_i$  = 1,777 nM). WLB-89462 (10  $\mu$ M) prevents decreases in the number of dopaminergic neurons in an *in vitro* model of neurodegeneration using primary rat neurons and induced by the neurotoxin N-methyl-4-phenylpyridinium (MPP<sup>+</sup>). *In vivo*, WLB-89462 (10 mg/kg) improves short-term memory in the T-maze in rats in a model of Alzheimer's disease induced by hippocampal amyloid- $\beta$  peptide injection.

## Reference

1. Christmann, U., Díaz, J.L., Pascual, R., *et al.* Discovery of WLB-89462, a new drug-like and highly selective  $\sigma_2$  receptor ligand with neuroprotective properties. *J. Med. Chem.* **66**(17), 12499-12519 (2023).

### 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.

### WARRANTY AND LIMITATION OF REMEDY

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