

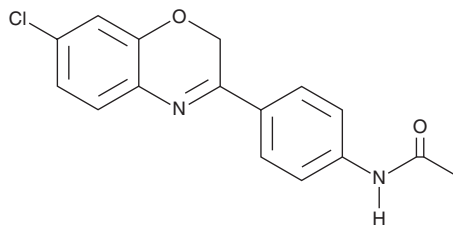
# PRODUCT INFORMATION



## QX-77

Item No. 29903

**CAS Registry No.:** 1798331-92-6  
**Formal Name:** N-[4-(7-chloro-2H-1,4-benzoxazin-3-yl)phenyl]-acetamide  
**MF:** C<sub>16</sub>H<sub>13</sub>ClN<sub>2</sub>O<sub>2</sub>  
**FW:** 300.7  
**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

QX-77 is supplied as a solid. A stock solution may be made by dissolving the QX-77 in the solvent of choice, which should be purged with an inert gas. QX-77 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of QX-77 in these solvents is approximately 15 and 25 mg/ml, respectively.

QX-77 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, QX-77 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. QX-77 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

QX-77 is an activator of chaperone-mediated autophagy (CMA).<sup>1</sup> It decreases mouse embryonic fibroblast (MEF) and Neuro2a cell death induced by paraquat or oleic acid (Item Nos. 90260 | 24659). QX-77 (20 μM) rescues defective trafficking and lysosomal localization of the CMA receptor LAMP2A in *Ctns*<sup>-/-</sup> MEFs and *CTNS* knockout human proximal tubule cells, models of the lysosomal storage disorder cystinosis.<sup>2</sup>

### References

1. Cuervo, A.M., Gavathiotis, E., Xin, Q., *et al.* Retinoic acid receptor antagonists as chaperone-mediated autophagy modulators and uses thereof. *Albert Einstein College of Medicine of Yeshiva University. US2015/0166492A1* (2015).
2. Zhang, J., Johnson, J.L., He, J., *et al.* Cystinosis, the small GTPase Rab11, and the Rab7 effector RILP regulate intracellular trafficking of the chaperone-mediated autophagy receptor LAMP2A. *J. Biol. Chem.* **292**(25), 10328-10346 (2017).

#### 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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