

# PRODUCT INFORMATION

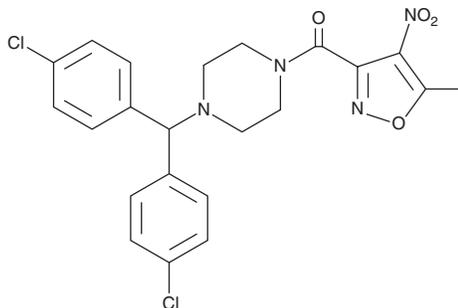


## ML-210

Item No. 23282

**CAS Registry No.:** 1360705-96-9  
**Formal Name:** [4-[bis(4-chlorophenyl)methyl]-1-piperazinyl](5-methyl-4-nitro-3-isoxazolyl)-methanone

**Synonym:** DPI10  
**MF:** C<sub>22</sub>H<sub>20</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>4</sub>  
**FW:** 475.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 232 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

ML-210 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-210 in the solvent of choice. ML-210 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ML-210 in these solvents is approximately 2.5 and 10 mg/ml, respectively. ML-210 is also slightly soluble in ethanol.

ML-210 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-210 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-210 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

ML-210 is an inhibitor of glutathione peroxidase 4 (GPX4).<sup>1</sup> It reduces viability of mesenchymal-state KP4 cells, an effect that can be blocked by the arachidonic acid lipoxygenase inhibitors PD 146176 (Item No. 10010518) and zileuton (Item No. 10006967). It is also selectively lethal to mutant RAS oncogene-expressing cells (IC<sub>50</sub>s = 71 and 272 nM in HRAS<sup>G12V</sup>-expressing and wild-type RAS-expressing BJeH cells, respectively).<sup>2</sup>

### References

1. Viswanathan, V.S., Ryan, M.J., Dhruv, H.D., *et al.* Dependency of a therapy-resistant state of cancer cells on a lipid peroxidase pathway. *Nature* **547(7664)**, 453-457 (2017).
2. Weïwer, M., Bittker, J.A., Lewis, T.A., *et al.* Development of small-molecule probes that selectively kill cells induced to express mutant RAS. *Bioorg. Med. Chem. Lett.* **22(4)**, 1822-1826 (2012).

#### 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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