

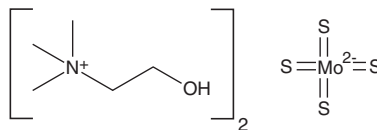
# PRODUCT INFORMATION



## ATN-224

Item No. 23553

**CAS Registry No.:** 649749-10-0  
**Formal Name:** 2-hydroxy-N,N,N-trimethyl-ethanaminium, tetrathiomolybdate  
**Synonym:** Bis-Choline Tetrathiomolybdate  
**MF:** C<sub>5</sub>H<sub>14</sub>NO • 1/2MoS<sub>4</sub>  
**FW:** 432.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 242, 315, 468 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

ATN-224 is supplied as a crystalline solid. A stock solution may be made by dissolving the ATN-224 in the solvent of choice, which should be purged with an inert gas. ATN-224 is soluble in the organic solvent DMSO at a concentration of approximately 20 mg/ml.

ATN-224 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ATN-224 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ATN-224 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

ATN-224 is a choline salt of tetrathiomolybdate and an inhibitor of superoxide dismutase 1 (SOD1; IC<sub>50</sub>s = 2.91 and 3.51 μM in human and mouse blood cells, respectively, *in vitro*).<sup>1</sup> ATN-224 reduces the viability of cultured oxidative stress-resistant WEHI7.2 murine thymic lymphoma cells (EC<sub>50</sub>s = 5-6 nM) and human diffuse large B cell lymphoma cell lines (EC<sub>50</sub>s = 9.73-105.61 nM) independently of Bcl-2 and Bcl-xL.<sup>2,3</sup> *In vivo*, ATN-224 (0.7 mg/kg) chelates copper to stabilize an antitumor viral vector, enhancing its efficacy against lung metastases in mice.<sup>4</sup> It also inhibits angiogenesis in a mouse model (IC<sub>50</sub>s = 1.50-3 mg/kg *via gavage*).<sup>1</sup>

### References

- Doñate, F., Juarez, J.C., Burnett, M.E., *et al.* Identification of biomarkers for the antiangiogenic and antitumor activity of the superoxide dismutase 1 (SOD1) inhibitor tetrathiomolybdate (ATN-224). *Br. J. Cancer.* **98(4)**, 776-783 (2008).
- Lee, K., Briehl, M.M., Mazar, A.P., *et al.* The copper chelator ATN-224 induces peroxynitrite-dependent cell death in hematological malignancies. *Free Radic. Biol. Med.* **60**, 157-167 (2013).
- Lee, K., Hart, M.R., Briehl, M.M., *et al.* The copper chelator ATN-224 induces caspase-independent cell death in diffuse large B cell lymphoma. *Int. J. Oncol.* **45(1)**, 439-447 (2014).
- Yoo, J.Y., Yu, J.G., Kaka, A., *et al.* ATN-224 enhances antitumor efficacy of oncolytic herpes virus against both local and metastatic head and neck squamous cell carcinoma. *Mol. Ther. Oncolytics* **2**, 15008 (2015).

#### 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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