

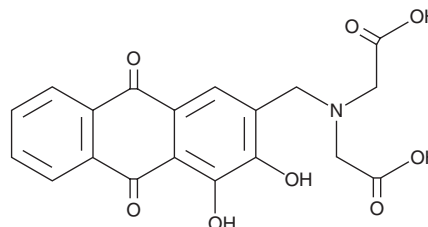
# PRODUCT INFORMATION



## Alizarin-3-methyliminodiacetic Acid

Item No. 22890

**CAS Registry No.:** 3952-78-1  
**Formal Name:** N-(carboxymethyl)-N-[(9,10-dihydro-3,4-dihydroxy-9,10-dioxo-2-anthracenyl)methyl]-glycine  
**Synonyms:** Alizarin Complexone, Alizarin Fluorine Blue, NSC 293056  
**MF:** C<sub>19</sub>H<sub>15</sub>NO<sub>8</sub>  
**FW:** 385.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 249, 429 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

Alizarin-3-methyliminodiacetic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the alizarin-3-methyliminodiacetic acid in the solvent of choice. Alizarin-3-methyliminodiacetic acid is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of alizarin-3-methyliminodiacetic acid in these solvents is approximately 10 mg/ml.

Alizarin-3-methyliminodiacetic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, alizarin-3-methyliminodiacetic acid should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Alizarin-3-methyliminodiacetic acid has a solubility of approximately 0.125 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Alizarin-3-methyliminodiacetic acid is a colorimetric dye for the detection of fluoride ions.<sup>1</sup> It reacts with fluoride to form a lilac-blue complex which can be quantified colorimetrically at 620 nm to determine fluoride concentration. Alizarin-3-methyliminodiacetic acid has been used to visualize fluoride deposition and bone mineralization during development in medaka larvae.<sup>2</sup> It is also an inhibitor of inducible nitric oxide synthase (iNOS; IC<sub>50</sub> = 35 nM).<sup>3</sup>

### References

1. Liu, X.-y. and Long, X.-l. Continuous-flow-injection analysis of fluoride in vegetables. *Guandong Nongye Kexue* **40**(13), 104-105 (2013).
2. Yu, T., Witten, P.E., Huyseune, A., et al. Live imaging of osteoclast inhibition by bisphosphonates in a medaka osteoporosis model. *Dis. Model Mech.* **9**(2), 155-163 (2016).
3. Gálvez-Llompарт, N., Recico, M.C., García-Domenech, R., et al. Molecular topology: A strategy to identify novel compounds against ulcerative colitis. *Mol. Divers.* **21**(1), 219-234 (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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
[WWW.CAYMANCHEM.COM](http://WWW.CAYMANCHEM.COM)