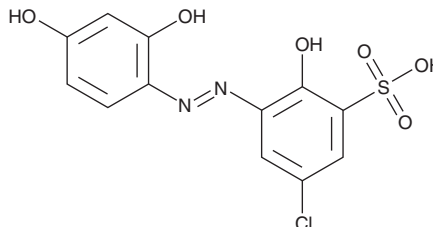


PRODUCT INFORMATION



Lumogallion Item No. 35596

CAS Registry No.: 4386-25-8
Formal Name: 5-chloro-3-[2-(2,4-dihydroxyphenyl) diazenyl]-2-hydroxy-benzenesulfonic acid
Synonym: NSC 102798
MF: C₁₂H₉ClN₂O₆S
FW: 344.7
Purity: ≥98%
UV/Vis.: λ_{max}: 261, 409 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Ex./Em. Max: 500/590 nm



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lumogallion is supplied as a solid. A stock solution may be made by dissolving the lumogallion in the solvent of choice, which should be purged with an inert gas. Lumogallion is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of lumogallion in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

Lumogallion is a fluorescent probe for aluminum.¹ It binds to aluminum, forming a complex that displays excitation/emission maxima of 500/590 nm, respectively. Lumogallin has been used to detect aluminum in natural waters and human urine and serum samples by HPLC, as well as in fixed soybean roots and THP-1 cells by confocal microscopy.¹⁻⁴

References

1. Mold, M., Eriksson, H., Siesjö, P., *et al.* Unequivocal identification of intracellular aluminium adjuvant in a monocytic THP-1 cell line. *Sci. Rep.* **4**, 6287 (2014).
2. Sutheimer, S.H. and Cabaniss, S.E. Determination of trace aluminum in natural waters by flow-injection analysis with fluorescent detection of the lumogallion complex. *Analytica Chimica Acta* **303**, 211-221 (1995).
3. Harper, M., Glowacki, C.R., and Michael, P.R. Industrial hygiene. *Anal. Chem.* **69**(12), 307R-327R (1997).
4. Silva, I.R., Smyth, T.J., Moxley, D.F., *et al.* Aluminum accumulation at nuclei of cells in the root tip. Fluorescence detection using lumogallion and confocal laser scanning microscopy. *Plant Physiol.* **123**(2), 543-552 (2000).

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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