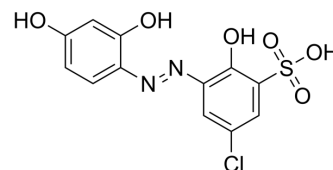


Lumogallion

Cat. No.:	HY-137296
CAS No.:	4386-25-8
Molecular Formula:	C ₁₂ H ₉ ClN ₂ O ₆ S
Molecular Weight:	344.73
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (290.08 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.9008 mL	14.5041 mL	29.0082 mL
	5 mM	0.5802 mL	2.9008 mL	5.8016 mL
	10 mM	0.2901 mL	1.4504 mL	2.9008 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Lumogallion is a highly sensitive fluorescent reagent for the detection of aluminum, gallium and other metals. Lumogallion has an excitation wavelength of 490 nm and an emission spectrum in the range of 520 nm to 650 nm, with a peak near 580 nm^{[1][2]}.

In Vitro

Lumogallion (1 mM, 45 min) can be used to detect aluminum levels in brain tissue of Alzheimer's patients^[1].

Lumogallion can be used as a probe to stain live cells with intracellular aluminum adjuvant^[2].

Lumogallion (10 μM, 60 min) can be used to detect aluminum content in root tip cell tissue of plants^[3].

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).

1. Dissolved lumogallion in 0.1 M acetate buffer (pH 5.2).
2. Sample and 10 μM lumogallion were co-incubated for 60 min in the dark.
3. Washed the mixed sample well with acetate buffer solution twice, 15 minutes each, and observed under a confocal laser microscope.
4. Excitation wavelength is 488 nm , emission wavelength is 520 nm.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Ambreen Mirza, et al. The Identification of Aluminum in Human Brain Tissue Using Lumogallion and Fluorescence Microscopy. J Alzheimers Dis. 2016 Oct 18;54(4):1333-1338.
- [2]. Irene Mile, et al. Al adjuvants can be tracked in viable cells by lumogallion staining. J Immunol Methods. 2015 Jul;422:87-94.
- [3]. Tatsuhiko Kataoka, et al. Highly sensitive analytical method for aluminum movement in soybean root through lumogallion staining. J. Plant Res. 110, 305–309 (1997).
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Caution: Product has not been fully validated for medical applications. For research use only.

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