

PRODUCT INFORMATION



Fluorescent Brightener 28

Item No. 41995

CAS Registry No.: 4193-55-9

Formal Name: 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-benzenesulfonic acid, disodium

Synonyms: Calcofluor White LRP, Calcofluor White M2R, Calcofluor White ST, Cellufluor, CFW, C.I. 40622, FB28, Fluostain I, UNPA-GX

MF: $C_{40}H_{42}N_{12}O_{10}S_2 \cdot 2Na$

FW: 960.9

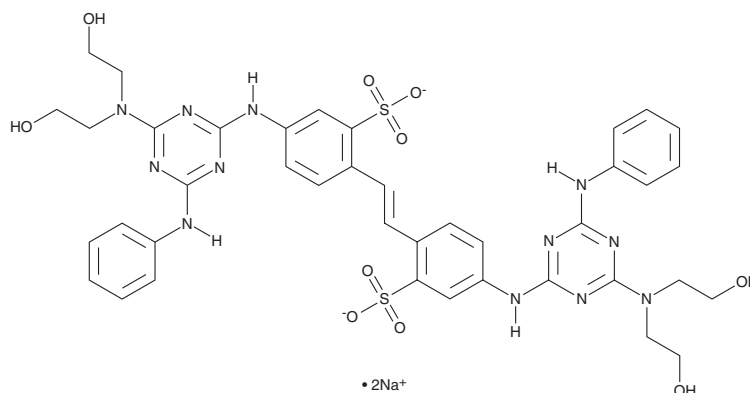
UV/Vis.: λ_{max} : 211, 245, 267, 356 nm

Ex./Em. Max: 350/465 nm

Supplied as: A 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

Fluorescent brightener 28 is supplied as a solid. A stock solution may be made by dissolving the fluorescent brightener 28 in the solvent of choice, which should be purged with an inert gas. Fluorescent brightener 28 is sparingly soluble (1-10 mg/ml) in methanol.

Description

Fluorescent brightener 28 is a fluorescent probe.¹ It has been used to image chitin in pale grass blue butterfly (*Z. maha*) wings and β -glucans and glycans in the cell walls of cucumber plant stem and root tissues.¹⁻³ Fluorescent brightener 28 displays an emission maximum of 430 nm upon excitation at 360 nm.¹ Formulations containing fluorescent brightener 28 have been used as brightening agents in soap, paper, and cotton fabrics.

References

1. Piccinini, L., Ramamonjy, F.N., and Ursache, R. Imaging plant cell walls using fluorescent stains: The beauty is in the details. *J. Microsc.* **295**(2), 102-120 (2024).
2. Nakazato, Y. and Otaki, J.M. Live detection of intracellular chitin in butterfly wing epithelial cells in vivo using fluorescent brightener 28: Implications for the development of scales and color patterns. *Insects* **14**(9), 753 (2023).
3. Schnieder, N., Känel, A., Zimmermann, M., *et al.* So similar yet so different: The distinct contributions of extrafascicular and fascicular phloem to transport and exudation in cucumber plants. *J. Plant Physiol.* **271**, 153643 (2022).

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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