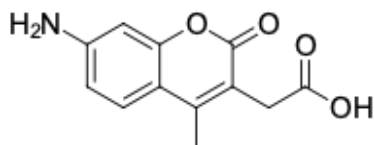


AMCA carboxylic acid

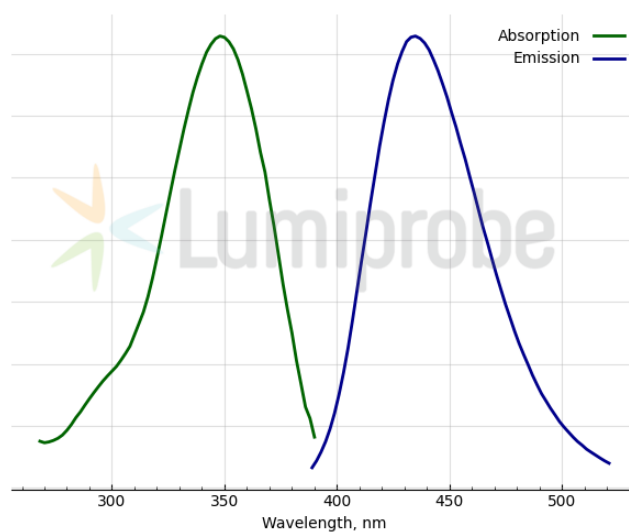
<http://www.lumiprobe.com/p/amca-carboxylic-acid>

AMCA (aminomethylcoumarin acetate) is one of the brightest blue fluorescent dyes. This fluorophore has a relatively large Stoke's shift, high resistance to photobleaching, and pH-independent fluorescence from pH 4 to 10. AMCA is a widely used fluorophore for multiple-color labeling due to its minimal fluorescence overlap with green- and longer wavelength-emitting fluorescent dyes.

AMCA carboxylic acid is a non-reactive form of AMCA dye that can be used as a reference standard in experiments involving AMCA dye conjugates. Besides, the carboxylic group can react with hydrazines, hydroxylamines, and amines using carbodiimides such as EDAC.



Structure of AMCA carboxylic acid



Absorption and emission spectra of AMCA

General properties

Appearance:	off-white solid
Molecular weight:	233.22
Molecular formula:	C ₁₂ H ₁₁ NO ₄
Solubility:	good in DMSO, DMF
Quality control:	NMR ¹ H and HPLC-MS (95+%)
Storage conditions:	24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

Spectral properties

Excitation/absorption maximum, nm:	348
ε, L·mol ⁻¹ ·cm ⁻¹ :	17400
Emission maximum, nm:	435
Fluorescence quantum yield:	0.91
CF ₂₆₀ :	0.16
CF ₂₈₀ :	0.13