# PRODUCT INFORMATION

## AMCA

*Item No. 29184*

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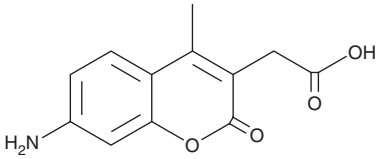
|---|---|
| **CAS Registry No.:** | 106562-32-7 |
| **Formal Name:** | 7-amino-4-methyl-2-oxo-2H-1-benzopyran-3-acetic acid |
| **Synonyms:** | AMCA blue, 7-Amino-4-methyl-3-coumarinylacetic Acid, 7-Amino-4-methylcoumarin-3-acetic Acid |
| **MF:** | $C_{12}H_{11}NO_4$ |
| **FW:** | 233.2 |
| **Purity:** | ≥90% |
| **UV/Vis.:** | $\lambda_{max}$: 234, 354 nm |
| **Abs./Em. Max:** | UV/400-460 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

AMCA is supplied as a solid. A stock solution may be made by dissolving the AMCA in the solvent of choice, which should be purged with an inert gas. AMCA is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of AMCA in these solvents is approximately 3 and 2 mg/ml, respectively.

AMCA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AMCA should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AMCA has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

AMCA is fluorescent protein labeling agent.[1] It contains an N-hydroxysuccinimide ester that reacts with lysine residues to form photostable amide links. Upon activation with UV light, AMCA displays emission maxima of 400-460 nm. It has commonly been used in multiplex immunophenotyping applications.[2-4]

### References


1. Khalfan, H., Abuknesha, R., Rand-Weaver, M., *et al.* Aminomethyl coumarin acetic acid: A new fluorescent labelling agent for proteins. *Histochem. J.* **18(9),** 497-499 (1986).
2. Ferri, G.-L., Gaudio, R.M., Castello, I.F., *et al.* Quadruple immunofluorescence: A direct visualization method. *J. Histochem. Cytochem.* **45(2),** 155-158 (1997).
3. Nederlof, P.M., Robinson, D., Abuknesha, R., *et al.* Three-color fluorescence in situ hybridization for the simultaneous detection of multiple nucleic acid sequences. *Cytometry* **10(1),** 20-27 (1989).
4. Gothot, A., Grosdent, J.-C., and Paulus, J.-M. A strategy for multiple immunophenotyping by image cytometry: Model studies using latex microbeads labeled with seven streptavidin-bound fluorochromes. *Cytometry* **24(3),** 214-225 (1996).





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