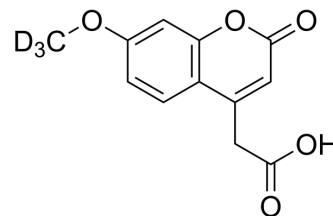


## (7-Methoxy-2-oxo-2H-chromen-4-yl)-acetic acid-d<sub>3</sub>

|                    |   |
|--------------------|---|
| Cat. No.:          | HY-W027544S   |
| Molecular Formula: | C <sub>12</sub> H <sub>7</sub> D <sub>3</sub> O <sub>5</sub>                              |
| Molecular Weight:  | 237.22  |
| Target:            | Isotope-Labeled Compounds   |
| Pathway:           | Others  |
| Storage:           | Please store the product under the recommended conditions in the Certificate of Analysis. |



### BIOLOGICAL ACTIVITY

#### Description

(7-Methoxy-2-oxo-2H-chromen-4-yl)-acetic acid-d<sub>3</sub> is the deuterium labeled MCA[1]. MCA is a coumarin derivative. MCA quantitates platelet-activating factor by high-performance liquid chromatography with fluorescent detection. MCA can modify FRET peptide substrates for analyzing protease activities[2][3].

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.

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

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Perera NC, et al. NSP4 is stored in azurophil granules and released by activated neutrophils as active endoprotease with restricted specificity. *J Immunol*. 2013 Sep 1;191(5):2700-7.
- [3]. Choi YH, et al. Effect of functional groups on the solubilities of coumarin derivatives in supercritical carbon dioxide. *Chromatographia*. 1998 Jan47(93-7).

**Caution: Product has not been fully validated for medical applications. For research use only.**

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