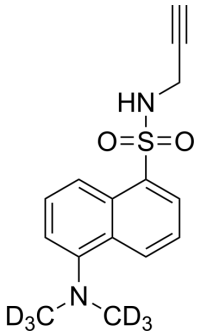
(7-Methoxy-2-oxo-2H-chromen-4-yl)-acetic acid-d_6

Cat. No.:	HY-W027544S1
Molecular Formula:	$C_{15}H_{10}D_6N_2O_2S$
Molecular Weight:	294.4
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_6 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]. (7-Methoxy-2-oxo-2H-chromen-4-yl)-acetic acid-d6 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.
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[1]. 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).

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