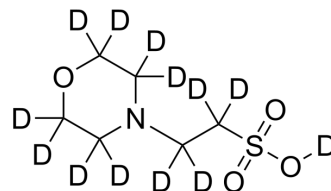


## MES-d<sub>13</sub>

<b>Cat. No.:</b>	HY-D0858S
<b>CAS No.:</b>	352534-94-2
<b>Molecular Formula:</b>	C <sub>6</sub> D <sub>13</sub> NO <sub>4</sub> S
<b>Molecular Weight:</b>	208.32
<b>Target:</b>	Isotope-Labeled Compounds
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	MES-d <sub>13</sub> is the deuterium labeled MES[1]. MES (2-Morpholinoethanesulphonic acid) is a buffering agent in biology and biochemistry. MES is one of the Good's buffers, the buffer capacity ranging pH 5.5-7.0. MES is broadly used to regulate pH value for plants culture medium, reagent solution, and physiological experiments[2][3].
<b>In Vitro</b>	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]. N E Good, et al. Hydrogen ion buffers for biological research. *Biochemistry.* 1966 Feb;5(2):467-77.
- [3]. Tomoko Kagenishi, et al. MES Buffer Affects Arabidopsis Root Apex Zonation and Root Growth by Suppressing Superoxide Generation in Root Apex. *Front Plant Sci.* 2016 Feb 187:79.

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

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