



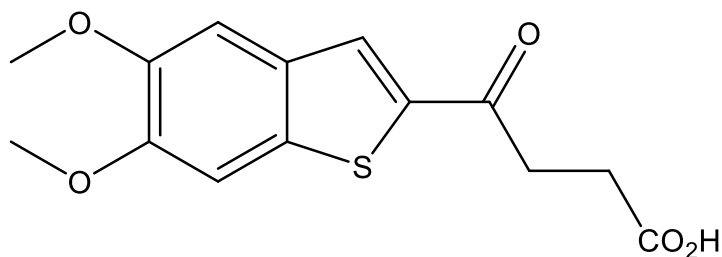
Catalog # 10-4141

MSA-2

CAS# 129425-81-6

4-(5,6-Dimethoxy-1-benzothiophen-2-yl)-4-oxobutanoic acid

Lot # FBS5015



MSA-2 is a non-nucleotide-based orally available STING agonist.² The active agent is a non-covalent dimer that forms in solution. It displays substantially higher potency in an acidified tumor microenvironment.¹ It reversed anti-PD-1 therapy resistance in cervical cancer.² MSA-2 displayed efficacy against clear cell renal cell carcinoma³ and enhanced natural killer cells against breast cancer stem cells⁴.

- 1) Pan *et al.* (2020), *An orally available non-nucleotide STING agonist with antitumor activity*; Science **369** eaba6098
- 2) Li *et al.* (2024), *STING agonist inflames the cervical cancer immune microenvironment and overcomes anti-PD-1 therapy resistance*; Front. Immunol. **15** 1342647
- 3) Wang *et al.* (2024), *STING agonist, MSA-2. Inhibits clear cell renal cell carcinoma through improving tumor microenvironment*; Mol. Cell Biochem. **479** 1697
- 4) Bushnell *et al.* (2024), *Natural Killer Cell Regulation of Breast Cancer Stem Cells Mediates Metastatic Dormancy*; Cancer Res. **84** 3337

PHYSICAL DATA

Molecular Weight: 294.32
Molecular Formula: C₁₄H₁₄O₅S
Purity: 98% TLC
NMR: (Conforms)
Solubility: DMSO (>25 mg/mL)
Physical Description: Yellow solid
Storage and Stability: Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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