



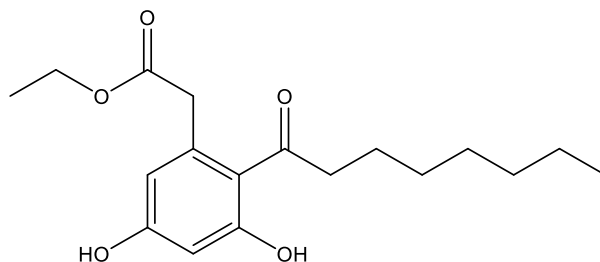
Catalog # 10-4408

Cytosporone B

CAS# 321661-62-5

Ethyl 2-(3,5-dihydroxy-2-octanoylphenyl)acetate

Lot # FBS5030



Cytosporone B is a naturally occurring agonist ($EC_{50} = 0.28$ nM) of nuclear receptor Nur77.¹ It elevated blood glucose levels in fasting mice and induced apoptosis in mouse tumor xenografts. Cytosporone B reduced proinflammatory mediators in various models.²⁻⁵ It inhibited esophageal squamous cell carcinoma growth and enhanced anti-PD-1 therapy efficacy.⁶ Cytosporone B enhanced the anti-tumor activity of natural killer cells against hepatocellular carcinoma.⁷

- 1) Zhan *et al.* (2008), *Cytosporone B is an agonist for nuclear orphan receptor Nur77*; Nat. Chem. Biol. **4** 548
- 2) Wu *et al.* (2016), *NUR77 exerts a protective effect against inflammatory disease by negatively regulating the TRAF6/TLR-IL-1R axis*; J. Pathol. **238** 457
- 3) Liu *et al.* (2017), *Activation of Nur77 in microglia attenuates proinflammatory mediator production and protects dopaminergic neurons from inflammation-induced cell death*; J. Neurochem. **140** 589
- 4) Ismaiel *et al.* (2021), *The NR4A agonist, Cytosporone B, attenuates pro-inflammatory mediators in human colorectal cancer tissue ex vivo*; Biochem. Biophys. Res. Commun. **554** 179
- 5) Patino-Martinez *et al.* (2022), *The Nur77 agonist Cytosporone B differentially regulates inflammatory responses in human polarized macrophages*; Immunobiology **227** 152299
- 6) Shi *et al.* (2024), *Nur77-IRF1 axis inhibits esophageal squamous cell carcinoma growth and improves anti-PD-1 treatment efficacy*; Cell Death Discov. **10** 254
- 7) Neo *et al.* (2026), *Nur77 agonism invigorates Natural Killer cell immunity against hepatocellular carcinoma*; Nat. Commun. **10** Online ahead of publication

PHYSICAL DATA

Molecular Weight:	322.40
Molecular Formula:	C ₁₈ H ₂₆ O ₅
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (>25 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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