

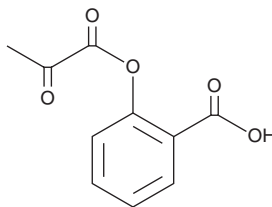
PRODUCT INFORMATION



OBA-09

Item No. 21918

CAS Registry No.: 856095-68-6
Formal Name: 2-(1,2-dioxopropoxy)-benzoic acid
MF: $C_{10}H_8O_5$
FW: 208.2
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 238, 300 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

OBA-09 is supplied as a crystalline solid. A stock solution may be made by dissolving the OBA-09 in the solvent of choice. OBA-09 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of OBA-09 in these solvents is approximately 80, 40, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of OBA-09 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of OBA-09 in PBS, pH 7.2, is approximately 2.7 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

OBA-09 is an ester of pyruvate and salicylic acid that has neuroprotective properties.¹ It decreases lactate dehydrogenase (LDH) release and prevents cell death induced by NMDA or zinc, and reduces the production of reactive oxygen species (ROS) induced by oxygen-glucose deprivation in mixed rat primary cortical cells when used at concentrations of 10 and 15 mM. OBA-09 (10 mg/kg) reduces infarct volume by 89.9% and decreases expression of IL-1 β , inducible nitric oxide synthase (iNOS), COX-2, and TNF- α in the brain in a rat model of ischemia induced by middle cerebral artery occlusion (MCAO).^{1,2} It improves motor performance in the rotarod test in the same model when administered at a dose of 10 mg/kg.¹

References

1. Kim, S.W., Kim, H.J., Shin, J.H., *et al.* Robust protective effects of a novel multimodal neuroprotectant oxopropanoyloxy benzoic acid (a salicylic acid/pyruvate ester) in the postischemic brain. *Mol. Pharmacol.* **79**(2), 220-228 (2011).
2. Lee, H.-K., Kim, S.-W., Jin, Y., *et al.* Anti-inflammatory effects of OBA-09, a salicylic acid/pyruvate ester, in the postischemic brain. *Brain Res.* **1528**, 68-79 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/15/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM