

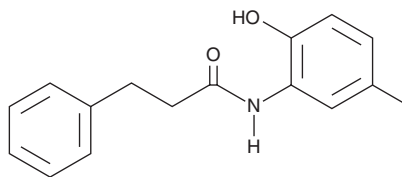
PRODUCT INFORMATION



AA147

Item No. 27143

CAS Registry No.: 393121-74-9
Formal Name: N-(2-hydroxy-5-methylphenyl)-benzenepropanamide
MF: C₁₆H₁₇NO₂
FW: 255.3
Purity: ≥95%
UV/Vis.: λ_{max}: 211 nm
Supplied as: A 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

AA147 is supplied as a solid. A stock solution may be made by dissolving the AA147 in the solvent of choice, which should be purged with an inert gas. AA147 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AA147 in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

AA147 is an endoplasmic reticulum (ER) proteostasis regulator.¹⁻³ It activates an activating transcription factor 6-dependent (ATF6-dependent) ER stress response element reporter and antioxidant response element reporter in HT22 hippocampal cells (EC₅₀s = 3.6 and 3.92 μM, respectively) and protects against glutamate-induced cytotoxicity and prevents increases in reactive oxygen species (ROS) in HT22 cells when used at a concentration of 10 μM.¹ AA147 (10 μM) reduces cell death induced by the unfolded protein response (UPR) activator tunicamycin and increases ER-associated protein degradation (ERAD) in neonatal rat ventricular myocytes.² It reduces the myocardial, renal, and cerebral infarct size as a percentage of the area at risk in mouse models of ischemia-reperfusion injury induced by left anterior descending coronary artery (LAD) ligation, renal portal system occlusion, or middle cerebral artery occlusion (MCAO), respectively, when administered at a dose of 2 mg/kg. AA147 also prevents the production of non-structural protein 5 (NS5) in dengue virus-infected Huh7 cells (IC₅₀ = ~1 μM).³

References

1. Rosarda, J.D., Baron, K.R., Nutsch, K., *et al.* Metabolically activated proteostasis regulators protect against glutamate toxicity by activating NRF2. *ACS Chem. Biol.* **16**(12), 2852-2863 (2021).
2. Blackwood, E.A., Azizi, K., Thuerauf, D.J., *et al.* Pharmacologic ATF6 activation confers global protection in widespread disease models by reprogramming cellular proteostasis. *Nat. Commun.* **10**(1), 187 (2019).
3. Almasy, K.M., Davies, J.P., Lisy, S.M., *et al.* Small-molecule endoplasmic reticulum proteostasis regulator acts as a broad-spectrum inhibitor of dengue and Zika virus infections. *Proc. Natl. Acad. Sci. USA* **118**(3), e2012209118 (2021).

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.

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