

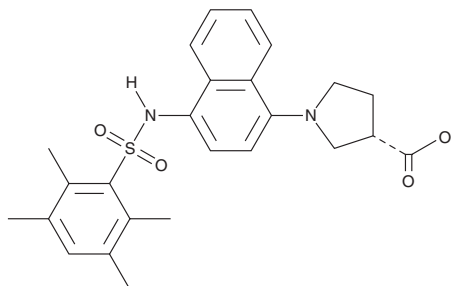
PRODUCT INFORMATION



RA839

Item No. 42640

CAS Registry No.: 1832713-02-6
Formal Name: 1-[4-[[[2,3,5,6-tetramethylphenyl]sulfonyl]amino]-1-naphthalenyl]-3-pyrrolidinecarboxylic acid
MF: C₂₅H₂₈N₂O₄S
FW: 452.6
Purity: ≥95%
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

RA839 is supplied as a solid. A stock solution may be made by dissolving the RA839 in the solvent of choice, which should be purged with an inert gas. RA839 is sparingly soluble (1-10 mg/ml) in ethanol and soluble (≥10 mg/ml) in DMSO.

Description

RA839 is an inhibitor of the protein-protein interaction between Kelch-like ECH-associated protein 1 (Keap1) and nuclear factor erythroid 2-related factor 2 (Nrf2).¹ It binds non-covalently to the Keap1 Kelch domain ($K_d = \sim 6 \mu\text{M}$). RA839 increases Nrf2-dependent transcription driven by antioxidant response element (ARE) in a reporter assay using HepG2 cells and induces Nrf2 nuclear translocation in U2OS cells ($EC_{50} = 1.2 \mu\text{M}$). It reduces LPS-induced increases in nitric oxide (NO) in bone marrow-derived macrophages (BMDMs) when used at concentrations ranging from 5 to 20 μM . RA839 (20 μM) reduces the levels of rotavirus structural proteins in infected MA-104 cells, an effect that is partially blocked by Nrf2 shRNA.² It also decreases propagation of the rotavirus strains SA11, Wa, and A5-13 in MA-104 cells (IC_{50} s = 10.303, 6.187, and 11.97 μM , respectively) and reduces viral titers in infected HT-29 and HEK293 cells (IC_{50} s = 11.815 and 9.686 μM , respectively).

References

1. Winkel, A.F., Engel, C.K., Margerie, D., *et al.* Characterization of RA839, a noncovalent small molecule binder to Keap1 and selective activator of Nrf2 signaling. *J. Biol. Chem.* **290**(47), 27446-28455 (2015).
2. Patra, U., Mukhopadhyay, U., Sarkar, R., *et al.* RA-839, a selective agonist of Nrf2/ARE pathway, exerts potent anti-rotaviral efficacy *in vitro*. *Antiviral Res.* **161**, 53-62 (2019).

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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