

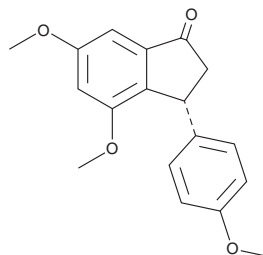
PRODUCT INFORMATION



(R)-STU104

Item No. 45375

CAS Registry No.: 2767124-77-4
Formal Name: (3R)-2,3-dihydro-4,6-dimethoxy-3-(4-methoxyphenyl)-1H-inden-1-one
MF: C₁₈H₁₈O₄
FW: 298.3
Purity: ≥98%
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

(R)-STU104 is supplied as a solid. A stock solution may be made by dissolving the (R)-STU104 in the solvent of choice, which should be purged with an inert gas. (R)-STU104 is soluble (≥10 mg/ml) in DMSO.

Description

(R)-STU104 is an inhibitor of the protein-protein interaction between TGF- β -activated kinase 1 (TAK1) and MAP kinase kinase 3 (MKK3).¹ It binds MKK3 ($K_D = 71$ nM), inhibits the phosphorylation of MKK3 in RAW 264.7 macrophages ($IC_{50} = 4$ μ M), and disrupts the interaction between MKK3 and TAK1 in the same cells. (R)-STU104 reduces TNF- α levels ($IC_{50} = 0.58$ μ M) and p38 and eukaryotic initiation factor 4E (eIF4E) phosphorylation in LPS-stimulated RAW 264.7 macrophages. It increases body weight and colon length and reduces serum levels of TNF- α , IL-1 β , IL-6, and IL-23 in mouse model of ulcerative colitis induced by dextran sulfate (DSS; Item No. 23250). It also increases the survival rate in an *IL-10*^{-/-} knockout mouse model of chronic ulcerative colitis.

Reference

1. Tang, M.-L., Li, H., Nig, J.-F., *et al.* Discovery of first-in-class TAK1-MKK3 protein-protein interaction (PPI) inhibitor (R)-STU104 for the treatment of ulcerative colitis through modulating TNF- α production. *J. Med. Chem.* **65**(9), 6690-6709 (2022).

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

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