

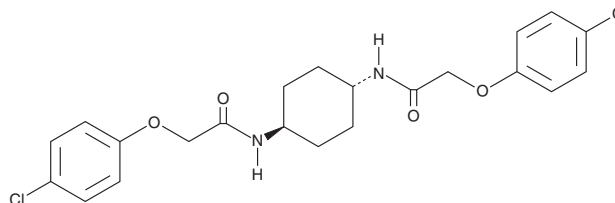
PRODUCT INFORMATION



trans-ISRIB

Item No. 16258

CAS Registry No.: 1597403-47-8
Formal Name: N,N'-*trans*-1,4-cyclohexanediylbis[2-(4-chlorophenoxy)-acetamide]
MF: C₂₂H₂₄Cl₂N₂O₄
FW: 451.3
Purity: ≥95%
UV/Vis.: λ_{max}: 226, 279 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

trans-ISRIB is supplied as a crystalline solid. A stock solution may be made by dissolving the *trans*-ISRIB in the solvent of choice, which should be purged with an inert gas. *trans*-ISRIB is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of *trans*-ISRIB in these solvents is approximately 2 mg/ml.

Description

Phosphorylation of eIF2α by several kinases in response to cellular stress, including accumulation of unfolded proteins in the ER, results in a decrease in overall protein synthesis but upregulation of a small number of key regulatory proteins. *trans*-ISRIB (Integrated Stress Response Inhibitor) is a symmetric bis-glycolamide that inhibits the eIF2α phosphorylation-mediated unfolded protein response following induction of ER stress (IC₅₀ = 5 nM in a cell-reporter assay).¹ Although the mechanism of action is not established, it does not directly inhibit phosphorylation of eIF2α by upstream kinases. *trans*-ISRIB is able to pass through the blood-brain barrier and significantly enhances learning and memory in mice and rats.¹

Reference

1. Sidrauski, C., Acosta-Alvear, D., Khoutorsky, A., *et al.* Pharmacological brake-release of mRNA translation enhances cognitive memory. *Elife* **2**, 1-22 (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

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