

PRODUCT INFORMATION

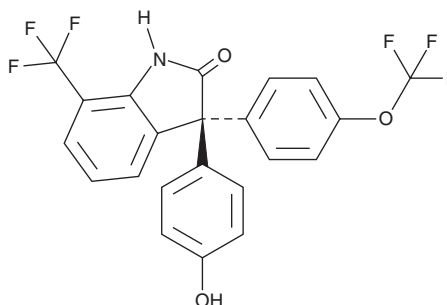


(R)-ErSO

Item No. 35684

CAS Registry No.: 2407860-35-7
Formal Name: (3R)-1,3-dihydro-3-(4-hydroxyphenyl)-3-[4-(trifluoromethoxy)phenyl]-7-(trifluoromethyl)-2H-indol-2-one

Synonym: ErSO
MF: C₂₂H₁₃F₆NO₃
FW: 453.3
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

(R)-ErSO is supplied as a solid. A stock solution may be made by dissolving the (R)-ErSO in the solvent of choice, which should be purged with an inert gas. (R)-ErSO is soluble in DMSO and methanol.

Description

(R)-ErSO is an activator of the anticipatory unfolded protein response (a-UPR).¹ It inhibits protein synthesis and induces intracellular ATP depletion in T47D cells that express estrogen receptor α (ER α), but not MDA-MB-231 cells which lack ER α , when used at a concentration of 1 μ M. (R)-ErSO (1 μ M) also increases levels of phosphorylated eukaryotic translation initiation factor 2 α kinase 3 (EIF2AK3), also known as PERK, eukaryotic translation initiation factor 2 α subunit (eIF2 α), and AMP-activated protein kinase (AMPK), markers of a-UPR activation, in T47D cells. It is cytotoxic to T47D, TYS, BT474, and ZR-75-1 ER α -positive breast cancer cells (IC₅₀s = 16.4, 11.1, 26.9, and 42.8 nM, respectively). *In vivo*, (R)-ErSO (40 mg/kg) induces tumor regression in an MCF-7 mouse xenograft model. It also induces tumor regression in an ST941/HI breast cancer patient-derived xenograft (PDX) mouse model.

Reference

1. Boudreau, M.W., Duraki, D., Wang, L., *et al.* A small-molecule activator of the unfolded protein response eradicates human breast tumors in mice. *Sci. Transl. Med.* **13(603)**, eabf1383 (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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