

Product Data Sheet

Product Name: ErSO
Cat. No.: GC62443

Chemical Properties

Cas. No. 2407860-35-7

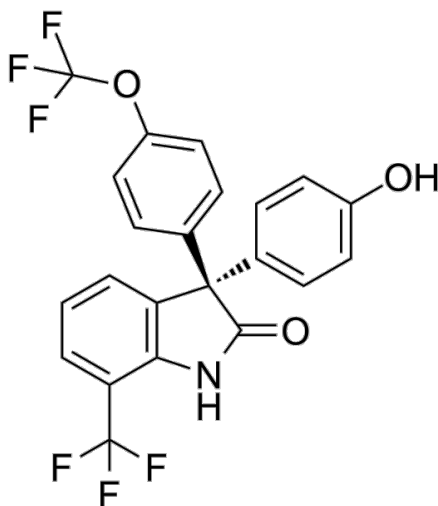
Formula $C_{22}H_{13}F_6NO_3$ M.Wt 453.33

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

ErSO is a selective anticipatory unfolded protein response (α-UPR) activator. ErSO acts through ERα to elicit strong and sustained cytotoxic activation of the α-UPR. ErSO can be used for the research of cancer[1].

ErSO (1~1000 nM; 24 hours; MCF-7 cells) shows that IC₅₀ value is 20.3 nM in MCF-7 cells and inhibits cell viability[1]. ErSO (1 μM; 24 hours; TYS cells) rapidly kills ERα-positive breast cancer cells. ErSO is effective against both the breast cancer cell lines expressing wild-type ERα and the ERαY537S and ERαD538G mutations such as human breast cancer cell lines TYS and TDG. ErSO

Caution: Product has not been fully validated for medical applications. For research use only.

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is also effective against tamoxifen- and fulvestrant-resistant breast cancer cell lines containing wild-type ER α . ErSO activity is independent of the presence of estrogen. ErSO induces rapid killing of ER α -positive MCF-7 human breast cancer cells[1].

ErSO (10 or 40 mg/kg; p.o.; 21 days) results in elimination of these tumors, with >90% reduction in all cases[1].ErSO (0.5~40 mg/kg; p.o.; 3 weeks) is sufficient for a robust response[1].ErSO (10 and 40 mg/kg; p.o.; 14 days) induces >10,000-fold regression of TYS-luciferase-expressing breast tumors in all five mice and >100,000-fold regression (to undetectable amounts) within 14 days as shown by bioluminescent imaging of luciferase as compared to vehicle-treated mice[1].ErSO (40 mg/kg; i.p.; 14 days) greatly reduces metastatic burden[1].ErSO treatment ablates mutant ER α breast cancer cell line xenografts and a PDX mouse model[1].

[1]. Boudreau MW, et al. A small-molecule activator of the unfolded protein response eradicates human breast tumors in mice. Sci Transl Med. 2021;13(603):eabf1383.

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