PRODUCT INFORMATION



FSEN1

Item No. 38025

CAS Registry No.:	862808-01-3	
Formal Name:	3-(4-bromophenyl)-6-[[4-(4-	
	methoxyphenyl)-1-piperazinyl]	
	methyl]-thiazolo[2,3-c]-1,2,4-triazole	
Synonym:	Ferroptosis Sensitizer 1	Br
MF:	$C_{22}H_{22}BrN_5OS$	
FW:	484.4	N S
Purity:	≥95%	\sim $(/)$
UV/Vis.:	λ _{max} : 244, 289 nm	N—Ń
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

FSEN1 is supplied as a crystalline solid. A stock solution may be made by dissolving the FSEN1 in the solvent of choice, which should be purged with an inert gas. FSEN1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of FSEN1 in DMF is approximately 1 mg/ml. FSEN1 is slightly soluble in DMSO.

Description

FSEN1 is an inhibitor of ferroptosis suppressor protein 1 (FSP1; IC_{50} = 313 nM).¹ It is selective for FSP1 over NAD(P)H:quinone acceptor oxidoreductase 1 (NQO1; IC_{50} = >100 µM). FSEN1 induces cell death in *GPX4*^{-/-} H460 non-small cell lung cancer (NSCLC) cells (EC₅₀ = 69.36 nM) but not control H460 cells expressing Cas9 (H460Cas9). It sensitizes A549, Huh7, HCC1143, U2OS, SU-DHL-5, and T98G cancer cells to ferroptosis induced by (1S,3R)-RSL3 (Item No. 19288) when used at concentrations ranging from 10 to 1,000 nM. FSEN1 also sensitizes H460Cas9 cells, but not FSP1^{-/-} H460 cells, to cell death induced by the ferroptosis inhibitors dihydroartemisinin (Item No. 19846) or FINO₂ (Item No. 25096).

Reference

1. Hendricks, J.M., Doubravsky, C., Wehri, E., et al. Identification of structurally diverse FSP1 inhibitors that sensitize cancer cells to ferroptosis. bioRxiv (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.

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