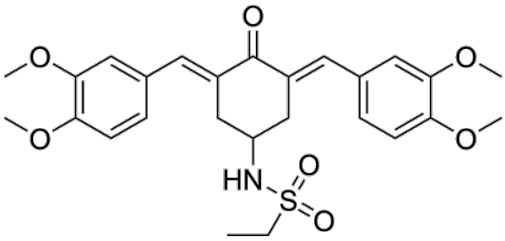
Product Data Sheet

Product Name: NFE2L1 activator-1
Cat. No.: GC78976

Chemical Properties

Cas. No.	3070514-51-8		
Formula	$C_{26}H_{31}NO_7S$	M.Wt	501.59
Solubility	DMSO: 100 mg/mL (199.37 mM; Need ultrasonic)	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

NFE2L1 activator-1 (Compound 5b) is a potent nuclear factor erythroid 2-related factor 1 (NFE2L1)

activator (EC 50 = 2.4 μM). NFE2L1 activator-1 effectively resists ferroptosis (Ferroptosis). NFE2L1 activator-1 can specifically activate the NFE2L1 signaling pathway to upregulate GPX4, PSMB7, PSMC4. NFE2L1 activator-1 can be used in cancer research [1].

In Vitro, NFE2L1 activator-1 potently activates NFE2L1-mediated transcription in HEK293 cells, with an EC50 of 2.4 μM[1]. NFE2L1 activator-1 (3 μM; 24 h) protects neuroblastoma SH-SY5Y cells against ferroptosis induced by erastin, RSL3 and FAC[1]. Treatment of SH-SY5Y neuroblastoma cells with NFE2L1 activator-1 (3 μM; 16 h) for 16 h upregulates the transcription of target genes of NFE2L1[1].

References:
[1]. Svobodová L, et al. Targeting NFE2L1 signalling with small molecules to protect against Ferroptosis. Bioorg Med Chem Lett. Published online October 3, 2025.