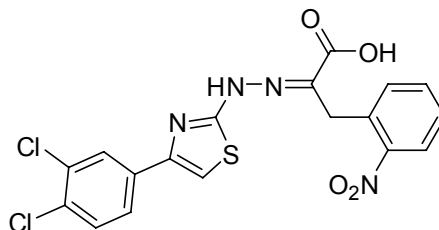


α -[2-[4-(3,4-Dichlorophenyl)-2-thiazolyl]hydrazinylidene]-2-nitro-benzenepropanoic acid (4EGI-1) - inhibitor of interaction between the translation initiation factors eIF4E and eIF4G



Chemical Formula: C₁₈H₁₂Cl₂N₄O₄S
Molecular Weight: 451.28

Ref.: Moerke et al. **Small-molecule inhibition of the interaction between the translation initiation factors eIF4E and eIF4G.** *Cell* (2007), 128, 257-267

Assembly of the eIF4E/eIF4G complex has a central role in the regulation of gene expression at the level of translation initiation. This complex is regulated by the 4E-BPs, which competes with eIF4G for binding to eIF4E and which have tumor-suppressor activity. To pharmacological mimic 4E-BP function the authors developed a high-throughput screening assay for identifying small-mol. inhibitors of the eIF4E/eIF4G interaction. The most potent compound identified **4EGI-1**, binds eIF4E, disrupts eIF4E/eIF4G association, and inhibits cap-dependent translation but not initiation factor-independent translation. While **4EGI-1** displaces eIF4G from eIF4E, it effectively enhances 4E-BP1 association both in vitro and in cells. **4EGI-1** inhibits cellular expression of oncogenic proteins encoded by weak mRNAs, exhibits activity against multiple cancer cell lines, and appears to have a preferential effect on transformed vs. nontransformed cells. The identification of this compound. provides a new tool for studying translational control and establishes a possible new strategy for cancer therapy.

OTAVA catalog no.	CAS RN	Amount	Delivery time	Purity
7070707011	315706-13-9	1 mg 5 mg 25 mg 1 gram	In-stock In-stock In-stock In-stock	≥ 95% by HPLC & ¹ H NMR