

Product Data Sheet

Product Name: dIRF4-2
Cat. No.: GC80940

Chemical Properties

Cas. No. 3136609-62-3

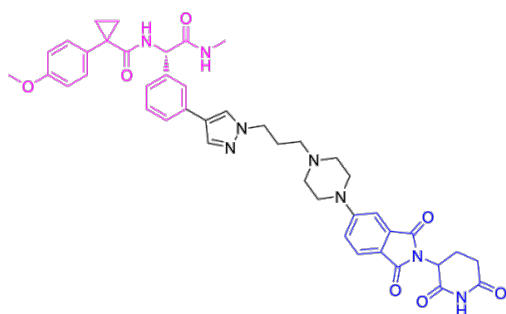
Formula $C_{43}H_{46}N_8O_7$ M.Wt 786.87

Solubility DMSO: 100 mg/mL (127.09 mM; Need ultrasonic) Storage Store at 4°C, away from moisture

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

dIRF4-2 is a selective IRF4 PROTAC degrader with a DC_{50} value of 2.2 μ M. dIRF4-2 forms a ternary

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

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complex between IRF4 and CRBN, inducing ubiquitination and proteasomal degradation of IRF4. dIRF4-2 downregulates MYC. dIRF4-2 exhibits anticancer activity against myeloma. dIRF4-2 acts as a chemical probe for investigating IRF4 function, mimicking the IRF4 gene knockout phenotype. dIRF4-2 can be used in the research of multiple myeloma ^[1]. (Pink: IRF4 ligand; Blue: Cereblon ligand; Black: linker).

In Vitro, dIRF4-2 (1-20 μ M; 24 h) induces dose-dependent proteasomal degradation of IRF4 in MM1.S and OPM2 multiple myeloma cell lines, with DC_{50} values of 2.2 μ M and 2.3 μ M respectively after 24 h of treatment^[1]. dIRF4-2 (2.5 μ M; 2-10 h) induces rapid and sustained degradation of IRF4 (initiated within 2 h), and treatment with 2.5 μ M for up to 10 h does not affect the off-target novel substrate IKZF3 in MM1.S and OPM2 multiple myeloma cell lines^[1]. dIRF4-2 (2.5 μ M; 2 h) induces the degradation of IRF4 in MM1.S multiple myeloma cells, and this degradation process is proteasome-dependent; co-treatment with 1 μ M bortezomib or 1 μ M MG132 followed by a 2-hour incubation restores IRF4 levels^[1]. dIRF4-2 (2.5 μ M; 4 h) induces highly selective degradation of IRF4 in MM1.S multiple myeloma cells, and exerts no significant effects on other IRF family members or novel CRBN substrates after 4 h of treatment at 2.5 μ M^[1]. dIRF4-2 (100 μ M three-fold dilution series; 96 h, with second dose at 48 h) induces potent, IRF4-dependent cytotoxicity in all tested multiple myeloma cell lines after 96 h of treatment (IC_{50} 0.68-8 μ M), while exerting no effect on IRF4-independent HEK293T cells (IC_{50} > 50 μ M)^[1].

References:

[1]. Agius MP, et al. Pharmacological targeting of IRF4 as a therapeutic strategy for multiple myeloma. Nat Chem Biol. 2026 May 28.

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