RS-2024-00334337

Discovery of selective first-in-class hit and lead compound targeting novel anti-cancer target SLC1A5_var against malignant tumor

Yonsei University, College of Pharmacy

ONCOLOGY | **Hit**

Product Type	Small Molecule Chemical
Indication	Solid Tumor
Target	Mitochondrial Glutamine Transporter
MoA(Mechanism of Action)	- Disruption of trimer formation of mitochondrial glutamine transporter, inhibiting glutaminolysis - Decreased uptake of glutamine into the mitochondria will selectively kill cancer cells and unaffecting normal cells - Decreased main nutrient for cancer cell survival leads to selective metabolic crisis to the cancer cells, but not to the normal cell
Competitiveness	- As the target is novel and first-in-class there are no competitors - Cellular Membrane Glutamine Transporter inhibitors are potential competitors, but most discovered cellular membrane glutamine transporters are glutamine analogs or less effective due to other cellular membrane glutamine transporters - Cellular Membrane Glutamine Transporter inhibitors are also toxic as they inhibit the global glutamine utilization of a cell
Development Stage	Hit
Route of Administration	Oral

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