

Development of a selective Discoidin Domain Receptor 1 (DDR1) inhibitor with first-in-class novel targets in multiple KRAS G12X-mutant malignant lung and pancreatic cancers



ONCOLOGY	Lead
Product Type	Small molecule inhibitor
Indication	Solid Tumor (KRAS variation)
Target	Discoidin Domain Receptor 1 (DDR1)
MoA(Mechanism of Action)	DDR1 activates the PI3K-Akt, NF-κB, and Ras-Raf-ERK pathways. Specifically, NF-κB-mediated activation of the p62-NRF2 signaling pathway increases the proliferation of cancer cells by promoting mitochondrial biosynthesis. DDR1 selective inhibitors assist to fight cancer by inhibiting malignant fibrosis, which allows infiltration of immune T-cells by altering the alignment of extracellular matrix, which can increase the response of conventional anti-cancer drugs.
Competitiveness	First In Class <ul style="list-style-type: none"> Drug efficacy against KRAS G12V, S mutations Expandable to treat fibrosis such as CKD Low side effect and good druglikeness Potentially applicable to immune-oncology diseases
Development Stage	Lead
Route of Administration	Oral or IV Administration