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Development of novel small molecule anticancer drugs targeting SMARCA2

HYUNDAI PHARM

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ONCOLOGY | **Candidate**

Product Type	Chemical Product (Small Molecule)
Indication	SMARCA4 mutant cancer
Target	SMARCA2
MoA(Mechanism of Action)	• SWI/SNF chromatin remodeling complex plays crucial role in regulating protein transcription. • SMARCA2 and SMARCA4 are subunit for SWI/SNF chormatin remodeling complex. • High percentage of human cancer bears SMARCA4 mutation and has dependency on its paralog SMARCA2. • Selective inhibition of SMARCA2 in SMARCA4 muntant cancer cells suppresses proliferation and enhances cancer cell death through synthetic lethal (SL) mechanism.
Competitiveness	• Currently, three FDA approved drugs work by targeting the synthetic lethal (SL) interaction between BRCA1/2 and PARP. • SL is known as a promising concept in cancer research as precision oncology. • Approximately 20% of all cancer carry mutations in SWI/SNF complex and SMARCA4 is one of the most commonly mutated genes. • Selective SMARCA2 inhibition can be a strong therapeutic method for treating SMARCA4-deficient tumors. • Additionally, the potential SMARCA2/4 dual inhibition also enables expanding the indications to prostate cancer, leukemia, lymphoma and myeloma as targeting other SWI/SNF complex mutations.
Development Stage	Candidate
Route of Administration	P.O.

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