HN22C0682

Anti-DX2 chemical drug to control KRAS-driven cancer

Zymedi

ZYMEDI

ONCOLOGY | **Candidate**

Product Type	Small Molecule
Indication	Colorectal Cancer (CRC)
Target	AIMP2-DX2 (DX2)
MoA(Mechanism of Action)	AIMP2-DX2 (DX2) is a protein involved in the stability of KRAS. By inhibiting the binding of DX2 and KRAS by the DX2 inhibitor, KRAS is ubiquitinated by Smurf2, an E3 ligase of KRAS, and eventually degraded. This mechanism of action is applicable to all KRAS mutation regardless of the variety of KRAS mutations.
Competitiveness	VEGF and EGFR inhibitors, which have the highest market share among colorectal cancer treatments, are ineffective against KRAS-mutated colorectal cancer and there is still no approved treatment for colorectal cancer with KRAS mutations. Among KRAS mutations, G12D, G12V, and G13D mutations are dominant, and sotorasib has no effect on these mutations. Although Sotorasib (Lumakras) is approved for NSCLC, it is limited to G12C and resistance has been reported thus its expansion to treat colorectal cancer doesn't seem too promising. For this reason, it is crucial to develop novel anti-cancer medications that will be universally effective for various KRAS mutations in general. Inhibitors of DX2 are based on mechanisms contributing to the stability of KRAS and inhibit various KRAS-mutated carcinomas in vitro and in vivo. We intend to develop an inhibitor of the pan KRAS mutation in an unprecedented way using our DX2 inhibitor.
Development Stage	Candidate
Route of Administration	IV, IP, PO

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