

Development of mRNA/LNP-Based Bio-PROTAC Platform Targeting pan-RAS for Lung Cancer Therapy

Korea Institute of Science and Technology



ONCOLOGY	Hit
Product Type	Gene & Nucleic acids
Indication	NSCLC
Target	Pan-KRAS
MoA(Mechanism of Action)	Lung-specific lipid nanoparticle (LNP) encapsulating Bio-PROTAC-encoding mRNA is delivered to the lung, where the translated Bio-PROTAC degrades mutant KRAS protein selectively.
Competitiveness	<ol style="list-style-type: none"> 1. We have a new lung-targeted LNP formulation that does not use cationic lipid (like DOTAP), and still shows low toxicity, strong lung selectivity, and high delivery efficiency. 2. We have a Bio-PROTAC sequence that does not degrade wild-type KRAS but does degrade all four hotspot mutant KRAS variants.
Development Stage	Hit
Route of Administration	primarily via intravenous administration (i.v.)

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