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Development of a biopharmaceutical lead molecule for the treatment of EGFR-positive cancer using an innovative modality that targets tumor surface EGFR and intracellular oncoprotein CP2c

Konkuk University GLOCAL Industry-Academic Cooperation Foundation

ONCOLOGY | **Hit**

Product Type	Antibody
Indication	EGFR-positive cancers : HNSCC, CRC, TNBC
Target	EGFR and CP2c (dual-targeting)
MoA(Mechanism of Action)	This single-protein agent delivers CPTin (COT-iRGD) peptides to malignant tumors through an anti-EGFR antibody and a tumor microenvironment (TME)-responsive linker peptide cleavage. The delivered CPTin is introduced into cancer cells to disrupt the oncogenic CP2c complexes and induces cancer cell-specific apoptosis, thereby providing a highly targeted cancer treatment.
Competitiveness	Anti-EGFR DTAT outperforms therapeutic anti-EGFR antibodies (Cetuximab, Necitumumab, etc), with higher productivity and greater potency and efficacy. Unlike anti-EGFR ADCs, anti-EGFR DTATs ensure excellent safety (no toxicity by CPTin payloads) and significant reductions in manufacturing costs (no needs for chemical payloads and conjugation linker chemistry).
Development Stage	Hit
Route of Administration	IV injection