

161 CUDU907 INHIBITS A549 PROLIFERATION BY ACTIVATING NDRG1

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Background At present, there are still great challenges in the treatment of tumors, and the role of NDRG1 in tumor proliferation has always been controversial.

Methods We extracted cancer-associated fibroblasts from 5 patients with non-small lung cancer and cultured them, stained A549 cultured alone and co-cultured with CAFs treated with CUDU907 and PDL-1. RNA sequencing was used to analyze differently expressed genes the A549 treated with CUDU907 and A549 in the co-culture system, and qPCR was used to verify the results of RNA sequencing. Then the expression of NDRG1 in cancer and paracancerous tissues was verified by immunohistochemical and WB experiments. A549 was transfected with siRNA to verify the effect of NDRG1 on the proliferation and migration of A549, as well as the phenotype of CAFs.

Results We found that the synergy between CUDU907 and PD-L1 is more significant in killing tumor cells, and CUDU907 can promote the expression of NDRG1 in A549, which is more obvious in the co-culture system with CAFs. Compared with paracancerous tissues, NDRG1 was more prominently distributed in tumor tissues of patients with non-small cell lung cancer, but there was no significant correlation with the degree of differentiation. Compared with the control group, A549 knocked down the NDRG1 gene had a significantly increased proliferation and migration ability.

Conclusions CUDU907 can kill tumor cells by activating NDRG1, and CAFs can also promote CUDU907 to activate NDRG1.

Ethics Approval All specimens were collected with the approval of the Institutional Review Board of Shanghai Pulmonary Hospital, and written informed consent was obtained from all patients and control participants.

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