

**OMTO, Volume 11**

**Supplemental Information**

**Recombinant Adenovirus KGHV500 and CIK Cells**

**Codeliver Anti-p21-Ras scFv for the Treatment of**

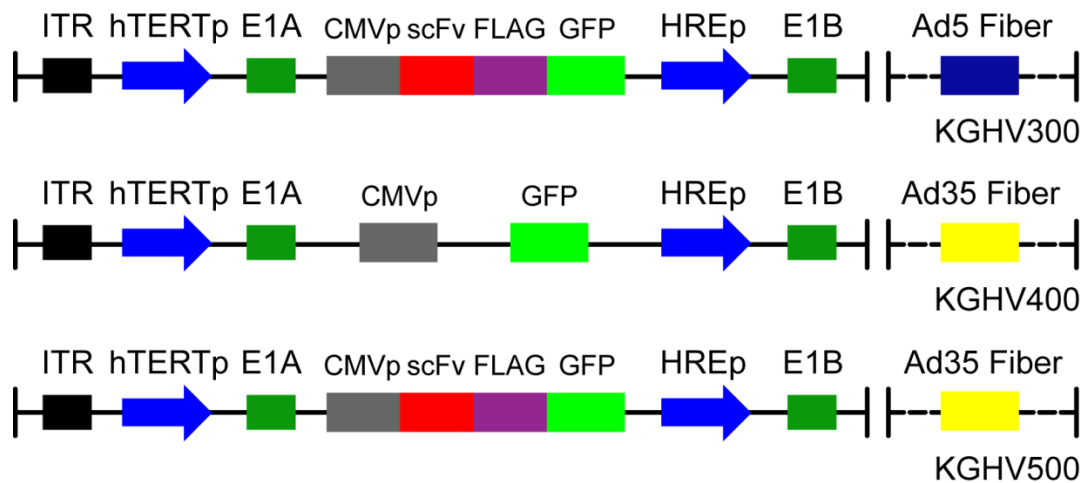
**Gastric Cancer with Wild-Type Ras Overexpression**

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## Supplementary Information

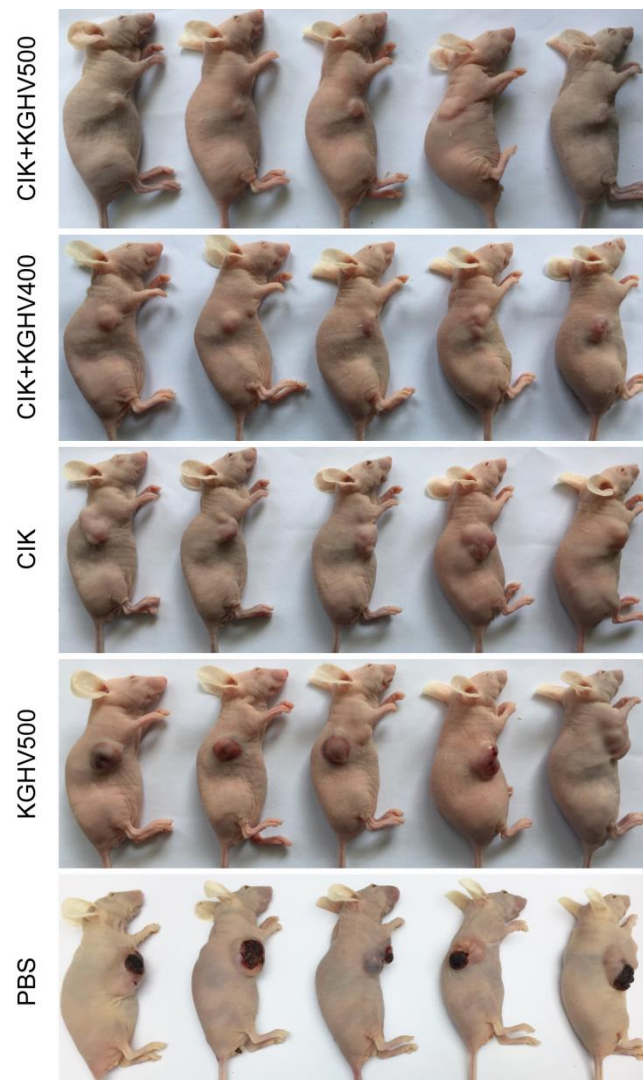
### Supplementary Figures

#### Supplementary Figure S1. Comparison of recombinant oncolytic adenovirus KGHV300, KGHV400 and KGHV500



Recombinant oncolytic adenovirus KGHV300 harbored the two human tumor cell specific promoters: hTERT and HRE promoters. Its cilia gene was wild-type Ad5 adenovirus cilia gene. The anti-p21 Ras scFv gene with flag and green fluorescent protein (GFP) labels was inserted into KGHV300 adenovirus. It could infect both tumor cells and normal cells, but was only specifically replicated in tumor cells with no harm to normal cells. The cilia gene of recombinant oncolytic adenovirus KGHV400 was replaced by Ad35 adenovirus cilia F35 gene, which encoded the receptor protein of CIK cell so that it could bind to CIK cell. But KGHV400 adenovirus only had GFP labels without the anti-p21 Ras scFv gene and flag tag. Recombinant oncolytic adenovirus KGHV500 was constructed by inserted the anti-p21 Ras scFv gene and flag tag into KGHV400 adenovirus. It could specifically bind to CIK cells but could not replicate in CIK cells, so that it could deliver by CIK cells to tumor cells *in vivo*, and further infected and replicated in tumor cells, finally killed the tumor cells.

**Supplementary Figure S2. Tumor-bearing nude mice after giving different administration 34 days**



Tumor-bearing nude mice were respectively treated with CIK+KGHV500, CIK+KGHV400, CIK, KGHV500 and PBS via tail vein injection. After 34 days, the tumor tissues in KGHV500 and PBS groups grew so rapidly that appeared obvious ulceration and bleeding. Then all the mice were euthanized and autopsied according to the rules of Ethics Board of Kunming General Hospital. It was observed that the sizes of tumors from small to large are: CIK+KGHV500, CIK+KGHV400, CIK, KGHV500 and PBS. The tumor of CIK+KGHV500 treated mice showed a slower proliferation progress as compared with other groups.

### Supplementary Table S1.

Groups	Weight (g)	
	Before	After
CIK+KGHV500	16.30 ±0.36	16.90 ±0.28
CIK+KGHV400	16.60 ±0.48	17.09 ±0.44
CIK	16.80 ±0.23	17.39 ±0.23
KGHV500	16.61 ±0.31	17.30 ±0.37
PBS	16.67 ±0.29	17.29 ±0.30

All the mice were weighted before and after administration, and the body weights were compared by repeated measures analysis of variance. The difference among each groups before and after treatment has no significance; mean ±SEM; ( $P>0.05$ ).