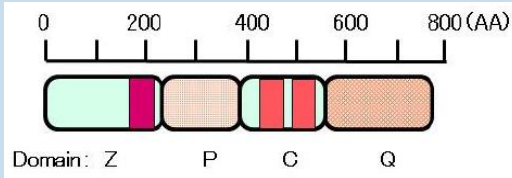


# A Novel Tumor Growth Inhibitor GEF-1/C

## Structure of GEF-1 protein



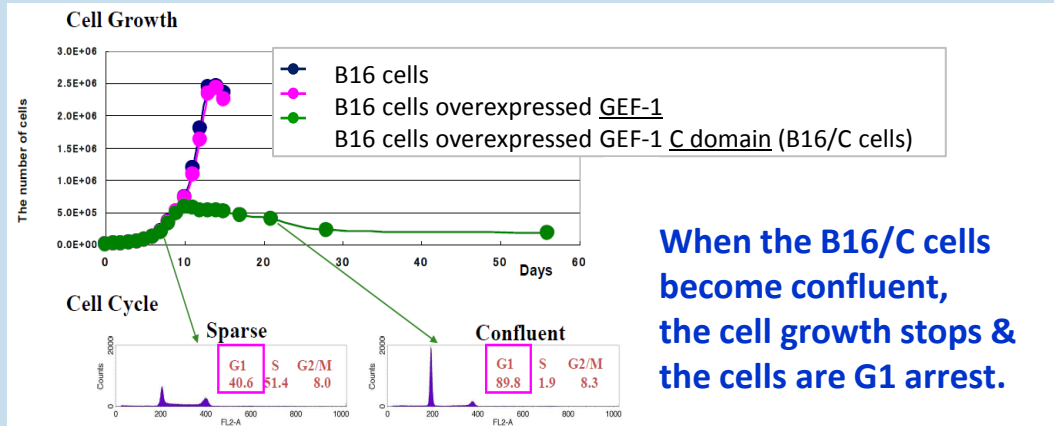
### GEF-1 protein

- binds to SMAD, etc.
- **INDUCES EMT** (Epithelial-Mesenchymal Transition) and Tumor Growth

### GEF-1 C domain

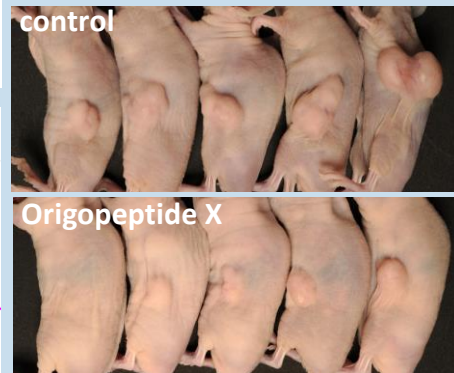
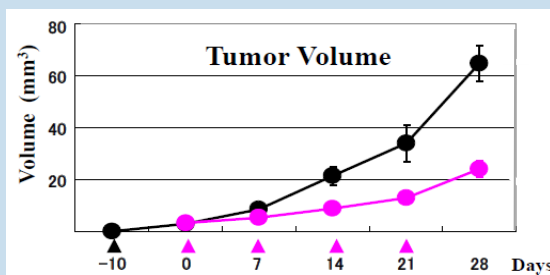
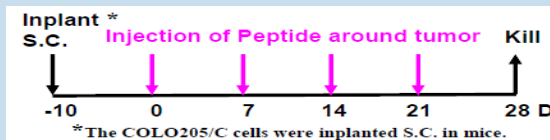
- **INHIBITS EMT** and Tumor Growth

## C domain suppresses cancer properties



When the B16/C cells become confluent, the cell growth stops & the cells are G1 arrest.

## GEF-1/C oligopeptides suppresses tumor growth of human colon cancer COLO205 cells in Nude Mice



GEF-1  $\xrightarrow{\text{SMAD}}$  EMT

GEF-1/C oligopeptide

~~Cancer Cell~~ ~~Metastasis~~ ~~Angiogenesis~~ ~~Cell density-independent growth~~ ~~Anchorage-independent growth~~



Tumor Growth Inhibition

