Anti-tumor Effect of an Immunotoxin Consisting of a Chimeric Anti-carcinoembryonic Antigen Antibody Conjugated to Ricin Toxin A

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Abstract: Immunotoxins, consisting of antibodies coupled to toxins, are extremely useful tools for the elimination of specific cell populations both *in vitro* and *in vivo* for research and therapeutic applications. The antibody is used to target the toxin to a specific cell population, which is distinguished by its cell-surface antigen. In this study, a mouse/human chimeric antibody to carcinoembryonic antigen (CEA) was chemically conjugated to deglycosylated ricin toxin A and the cytotoxic effect of the resulting immunotoxin was investigated *in vitro*. This immunotoxin showed a potent cytotoxicity against human CEA-expressing tumor cells, thus suggesting that this immunotoxin may therefore be potentially effective as a new anticancer agent.

Key words: Carcinoembryonic antigen (CEA), Chimeric antibody, Immunotoxin, Ricin toxin A (RTA)