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(54) **Title**: PREPARATION OF MAYTANSINOID ANTIBODY CONJUGATES BY A ONE-STEP PROCESS

(57) **Abstract**: The invention provides a one-step process for preparing a cell-binding agent cytotoxic agent conjugate comprising contacting a cell-binding agent with a cytotoxic agent to form a first mixture comprising the cell-binding agent and the cytotoxic agent and contacting the first mixture comprising the cell-binding agent and the cytotoxic agent with a bifunctional crosslinking reagent, which provides a linker, in a solution having a pH of about 4 to about 9 to provide a second mixture comprising the cell-binding agent cytotoxic agent conjugate, wherein the cell-binding agent is chemically coupled through the linker to the cytotoxic agent, free cytotoxic agent, and reaction by-products. The second mixture is then optionally subjected to purification to provide a purified cell-binding agent cytotoxic agent conjugate.