

The invention relates to conjugates of anti-integrin specific antibodies with cytotoxic compounds, the synthesis, selection, and use of such conjugates for use in cancer therapy or other diseases mediated by cell proliferation, cell migration, or inflammation and which pathology involves angiogenesis or neovascularization of new tissue. In addition the invention relates to combination therapy of such diseases wherein the treatment comprises use of said conjugates in combination with one or more other treatment modalities including but not limited to: chemotherapy, surgery or radiation therapy. The preferred conjugates contain maytansinoid compounds linked to the antibody by a disulfide linkage, and preferred chemotherapeutic agents are doxorubicin, a taxane, a camptothecin, a podophyllotoxin, a nucleoside analog, or a pyrimidine analog.