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# Anti-CD26 Monoclonal Antibody YS110

National Cancer Institute

## Source

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A humanized, immunoglobulin G1 (IgG1) monoclonal antibody directed against the extracellular domain of dipeptidyl peptidase 4 (CD26; DPP4; DPP IV), with potential antineoplastic activity. Upon administration of anti-CD26 monoclonal antibody YS110, this antibody targets and binds to CD26 expressed on tumor cells. This inhibits CD26 activity and causes internalization of CD26-YS110. This leads to cell cycle arrest, lysis and inhibition of growth in CD26-positive tumor cells. YS110 also induces antibody-dependent cellular cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC) against CD26-expressing tumor cells. CD26, a 110-kDa, type II transmembrane glycoprotein, is overexpressed in a variety of cancer cell types while absent in normal, healthy cells and plays a key role in tumor cell growth, migration, invasion and survival. It also plays a major role in the regulation of T-cell activity.