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# Natalizumab

National Cancer Institute

## Source

National Cancer Institute. *Natalizumab*. NCI Thesaurus. Code C77862.

A humanized recombinant IgG4 monoclonal antibody directed against the alpha4 subunit of the integrins alpha4beta1 and alpha4beta7 with immunomodulating, anti-inflammatory, and potential antineoplastic activities. Natalizumab binds to the alpha4-subunit of alpha4beta1 and alpha4beta7 integrins expressed on the surface of all leukocytes except neutrophils, inhibiting the alpha4-mediated adhesion of leukocytes to counter-receptor(s) such as vascular cell adhesion molecule-1 (VCAM-1); natalizumab-mediated disruption of VCAM-1 binding by these integrins may prevent the transmigration of leukocytes across the endothelium into inflamed parenchymal tissue. Integrins are cellular adhesion molecules (CAMs) that are upregulated in various types of cancer and some autoimmune diseases; alpha4beta1 integrin (VLA4) has been implicated in the survival of myeloma cells, possibly by mediating their adhesion to stromal cells.