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Anti-c-fms Monoclonal Antibody AMG 820

National Cancer Institute

Source

National Cancer Institute. *Anti-c-fms Monoclonal Antibody AMG 820*. NCI Thesaurus. Code C98295.

A fully human IgG2 monoclonal antibody against the colony-stimulating factor-1 (CSF-1 or M-CSF) receptor c-fms (or CSFR1), with potential antineoplastic activity. Upon administration, anti-c-fms monoclonal antibody AMG 820 binds to and blocks c-fms, thereby blocking CSF-1 binding to its receptor and suppressing CSF-1-induced c-fms signaling. This results in the suppression of recruitment and activation of tumor associated macrophages (TAM) within the tumor microenvironment. This eventually leads to a decrease in tumor growth. c-fms, a transmembrane protein belonging to the tyrosine kinase family, is overexpressed in certain tumor cell types and plays an essential role in macrophage differentiation and regulation of cell proliferation. The presence of TAM is correlated with tumor proliferation, invasion and a poor prognosis.