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Anti-C5aR Monoclonal Antibody IPH5401

National Cancer Institute

Source

National Cancer Institute. *Anti-C5aR Monoclonal Antibody IPH5401*. NCI Thesaurus. Code C163020.

A human monoclonal antibody targeting the C5a receptor (C5aR), with potential immunomodulating activity. Upon administration, the anti-C5aR monoclonal antibody IPH5401 specifically targets, binds to and blocks C5aR expressed on subsets of myeloid-derived suppressor cells (MDSCs) and neutrophils. This prevents the binding of its ligand C5a to C5aR and prevents the C5aR-mediated activation and accumulation of these cells in the tumor microenvironment (TME), and abrogates the secretion of inflammatory and angiogenic factors by these cells. This results in the activation of T- and natural killer (NK) cells, the induction of anti-tumor immune responses and inhibits tumor cell proliferation. C5a, a factor in the complement cascade, is often overexpressed in tumors, where it attracts and activates MDSCs and neutrophils in the TME.