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# Nivolumab

National Cancer Institute

## Source

National Cancer Institute. *Nivolumab*. NCI Thesaurus. Code C68814.

A fully human immunoglobulin (Ig) G4 monoclonal antibody directed against the negative immunoregulatory human cell surface receptor programmed death-1 (PD-1, PCD-1) with immune checkpoint inhibitory and antineoplastic activities. Upon administration, nivolumab binds to and blocks the activation of PD-1, an immunoglobulin superfamily (IgSF) transmembrane protein, by its ligands programmed cell death ligand 1 (PD-L1), which is overexpressed on certain cancer cells, and programmed cell death ligand 2 (PD-L2), which is primarily expressed on antigen-presenting cells (APCs). This results in the activation of T-cells and cell-mediated immune responses against tumor cells. Activated PD-1 negatively regulates T-cell activation and plays a key role in tumor evasion from host immunity.