GENERIC NAME	TRADE NAME	MECHANISM/TARGET OF ACTION
Abatacept	Orencia	Anti-CD28/CTLA-4
Adalimumab	Humira	TNF blocker
Alemtuzumab	Campath	Anti-CD52
Anakinra	Kineret	IL-1 antagonist
Atezolizumab	Tecentriq	PD- L1
Avelumab	Bavencio	PD- L1
Basiliximab	Simulect	IL-2R/CD25
Belatacept	Nulojix	CTLA-4
Bevacizumab	Avastin	VEGF
Certolizumab pegol	Cimzia	TNF blocker
Cetuximab	Erbitux	EGFR
Dasatinib	Sprycel	Bcr-Abl tyrosine kinase inhibitor
Dimethyl fumarate	Tecfidera	Activates the nuclear erythroid 2-related factor 2 transcriptional pathway
Etanercept	Enbrel	TNF blocker
Fingolimod	Gilenya	Sphingosine 1-phosphate receptor modulator
Glatiramer acetate	Copaxone	Immunomodulatory; target unknown
Golimumab	Simponi	TNF blocker
Ibritumomab tiuxetan	Zevalin	CD20 with radioisotope
Ibrutinib	Imbruvica	Tyrosine kinase inhibitor
Imatinib mesylate	Gleevec, STI 571	Signal transduction inhibitor/protein-tyrosine kinase inhibitor
Infliximab	Remicade	TNF blocker
Interferon alfa	Pegasys, PegIntron	Block hepatitis C viral replication
Interferon beta-1a	Avonex, Rebif	Immunomodulatory; target unknown
Interferon beta-1b	Betaseron	Immunomodulatory; target unknown
Natalizumab	Tysabri	α4-integrin
Nivolumab	Opdivo	PD-1
Ofatumumab	Arzerra	CD20
Panitumumab	Vectibix	EGFR
Pembrolizumab	Keytruda	PD-1
Lenalidomide	Revlimid	Immunomodulatory
Rilonacept	Arcalyst	IL-1
Rituximab	Rituxan	CD20
Sarilumab	Kevzara	IL- 6
Secukinumab	Cosentyx	IL-17A
Sunitinib malate	Sutent	Multikinase inhibitor
Tocilizumab	Actemra	IL-6
Tofacitinib	Xeljanz	JAK kinase inhibitor
Trastuzumab	Herceptin	Human EGFR 2 (HER2)
Ustekinumab	Stelara	IL-12, IL-23
Vedolizumab	Entyvio	Binds integrin $\alpha_4\beta_7$

Abbreviations: CD, cluster of differentiation; CTLA, cytotoxic T-lymphocyte antigen; TNF, tumor necrosis factor; IL, interleukin; VEGF, vascular endothelial growth factor; EGFR, epidermal growth factor receptor.

[1]This table is based primarily on conservative expert opinion, given the lack of clinical data. Numerous agents are often given in combination with other agents (especially chemotherapy) and are immunosuppressive when given together. The list provides examples but is not inclusive of all biologic agents that suppress or modulate the immune system. Not all therapeutic monoclonal antibodies or other biologic agents result in immunosuppression; details of individual agents not listed here must be reviewed before determining whether live viral vaccines can be given. Interferon and glatiramer acetate given to multiple sclerosis patients are immunomodulators and are generally not classified by MS experts as immunosuppressive so do not preclude live vaccine administration (except perhaps YF vaccine), but clinical data to support safety with live vaccines are lacking.