

Table 1.1 Therapeutic monoclonal antibodies, Fc fusion and Fab conjugates approved or in review in the European Union or United States^a—cont'd

Brand name	Molecule	Type of mAb	Year approved	Company	Indication	Administration route
Enbrel	Etanercept	Anti-tumor necrosis factor (TNF) dimeric fusion protein consisting of the extracellular ligand-binding portion of the human tumor necrosis factor receptor (TNFR) linked to the Fc portion of a human IgG1	First approved in 1999	Amgen	Moderate to severe rheumatoid arthritis (RA), adult chronic moderate to severe plaque psoriasis in patients who are candidates for systemic therapy or phototherapy, psoriatic arthritis, moderate to severe juvenile idiopathic arthritis (JIA), and ankylosing spondylitis (AS)	SC
Entyvio	Vedolizumab	Anti- $\alpha_4\beta_7$ (LPAM-1), lymphocyte Peyer's patch adhesion molecule; humanized IgG1	In review (2013)	Takeda	Ulcerative colitis; Crohn's disease	IV infusion
Erbitux	Cetuximab	Anti-EGFR; chimeric IgG1k	2004 (2004)	ImClone and BMS	Treatment of EGFR-expressing colorectal carcinoma	IV infusion
Eylea	Aflibercept	Fc fusion consisting of portions of human VEGF receptors 1 and 2 extracellular domains fused to the Fc portion of human IgG1	2012 (2011)	Regeneron	Age-related wet macular degeneration	Intravitreal injection
Gazyva	Obinutuzumab	Anti-CD20; humanized IgG1; glycoengineered	In review	—	Chronic lymphocytic leukemia	—