Tocilizumab

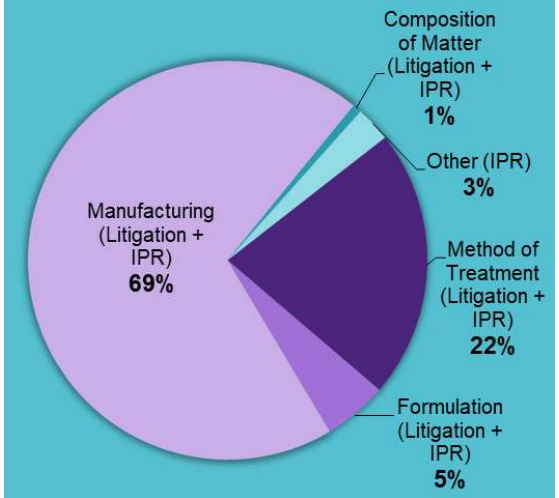
Technology: Tocilizumab is a humanized monoclonal antibody against the interleukin-6 (IL-6) receptor that inhibits IL-6 signaling and hinders IL-6's pro-inflammatory effects.

Tocilizumab Timeline

- **Jan. 2010** Actemra® (injection) FDA Approval (BLA 125276) (Genentech)
- **Oct. 2013** Actemra® (subcutaneous) FDA Approval (BLA 125472) (Genentech)
- **Sep. 2023** Biosimilar Tofidence™ FDA Approval (aBLA 761354) (Biogen / Bio-Thera)
- **Jan. 2024** CT-P47 (Celltrion) aBLA Submitted to FDA
- **Mar. 2024** Biosimilar Tyenne® FDA Approval (aBLA 761275) (Fresenius Kabi)
- **Apr. 2024** Biosimilar Tyenne® Launch (Fresenius Kabi)
- **Jan. 2025** Biosimilar Avtozma® FDA Approval (aBLA 761420) (Celltrion)
- **Oct. 2025** Biosimilar Avtozma® Launch (Celltrion)
- **Jun. 2021** *Fresenius Kabi v. Chugai* IPR2021-01024, 01025 Petitions Filed [Settled After Institution]
- **Aug. 2021** *Fresenius Kabi v. Chugai* IPR2021-01288, 01336 Petitions Filed [Settled After Institution]
- **Sep. 2021** *Fresenius Kabi v. Chugai* IPR2021-01542 Petition Filed [Settled After Institution]
- **Nov. 2021** *Fresenius Kabi v. Chugai* IPR2022-00201 Petition Filed [Settled After Institution]
- **Feb. 2022** *Celltrion v. Chugai* IPR2022-00578, 00579 Petitions Filed [FWD: All Challenged Claims Unpatentable]; Appeals Pending
- **Jun. 2022** *Fresenius Kabi v. Chugai* IPR2022-01065 Petition Filed [Settled Before Institution]
- **Jul. 2023** *Genentech v. Biogen* (1:23-cv-11573 (D. Mass.)) Complaint Filed [Settled]
- **Nov. 2023** *Chugai v. Celltrion* Fed. Cir. Appeal Nos. 24-1111 (IPR2022-00579) and 24-1115 (IPR2022-00578) Filed [Voluntarily Dismissed]

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Tocilizumab Challenged Claim Types in IPR and Litigation*



*Litigation Defendants alleged to infringe at least these claims in complaints/amended complaints. Joinder counted separately.

VENABLE LLP

	Fresenius Kabi v. Chugai IPR2021-01024 Settled after institution	*Fresenius Kabi v. Chugai* IPR2021-01025 Settled after institution	*Fresenius Kabi v. Chugai* IPR2021-01288, IPR2021-01542 Settled after institution	*Fresenius Kabi v. Chugai* IPR2021-01336 Settled after institution	*Fresenius Kabi v. Chugai* IPR2022-00201 Settled after institution	*Celltrion v. Chugai* IPR2022-00578 Final Written Decision (All challenged claims unpatentable); Appeal 24-1115 voluntarily dismissed	*Celltrion v. Chugai* IPR2022-00579 Final Written Decision (All challenged claims unpatentable); Appeal 24-1111 voluntarily dismissed	*Fresenius Kabi v. Chugai* IPR2022-01065 Settled before institution	*Genentech v. Biogen* 1:23-cv-11573 (D. Mass.) Settled
7,332,289									x
7,521,052	x								x
8,398,980									x
8,512,983									x
8,574,869									x
8,580,264			x			x			
8,734,800									x
9,714,293									x
9,750,752					x				
9,902,777									x
10,017,732									x
10,231,981								x	
10,336,983									x
10,501,769									x
10,662,237									x
10,676,710									x
10,744,201		x							x
10,829,732									x
10,874,677				x			x		
10,982,003									x
11,021,728									x
11,078,294									x
11,136,610									x
11,377,678									x