

## Anti-IL-6 receptor [rhPM-1 (Tocilizumab)] Standard Size Ab00737-10.0

NOT FOR THERAPEUTIC USE - This is a research-grade biosimilar.

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** rhPM-1 (Tocilizumab)

**Alternative Name(s) of Target:** IL6R; IL-6R; CD126; MRA; atlizumab; TCZ; Interleukin-6 receptor subunit alpha; IL-6 receptor subunit alpha; IL-6R subunit alpha; IL-6R-alpha; IL-6RA; IL-6R 1; Membrane glycoprotein 80; gp80; PM1; PM-1

**UniProt Accession Number of Target Protein:** P08887

**Published Application(s):** inhibit, ELISA

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by CDR grafting of mouse PM-1 antibody onto human REI and NEW framework regions to create rhPM-1.

**Specificity:** Tocilizumab binds specifically to both the membrane bound and soluble forms of human IL-6R. The IL6 receptor is a protein complex consisting of an IL-6 receptor subunit (IL6R) and interleukin 6 signal transducer Glycoprotein 130. Interleukin 6 (IL6) is a potent pleiotropic cytokine that regulates cell growth and differentiation and plays an important role in immune response.

**Application Notes:** This antibody is derived from the parental mouse clone PM-1 (PM1). Tocilizumab (TCZ) binds and neutralizes IL-6R, resulting in the inhibition of various IL-6-mediated biological activities, including inflammation-related, immunomodulatory and tissue/matrix remodelling effects. This antibody is extensively explored for its therapeutic potential in treatment of rheumatoid arthritis (PMID: 25099958; 9836380). Tocilizumab can be used in ELISA assays and is able to inhibit the growth of IL-6-dependent tumor cell lines. It inhibits sIL-6R and mIL-6R-mediated signaling. A study reported that a combination of tocilizumab and methotrexate (MTX) results in greater inhibition of joint damage and improvement in physical function than does MTX alone (PMID: 21360490). Treatment with tocilizumab results in significant improvement, maintained over time, of polyarticular-course juvenile idiopathic arthritis (pcJIA) signs and symptoms and has a safety profile consistent with that for adults with rheumatoid arthritis (PMID: 24834925).

**Antibody First Published in:** Sato et al. Reshaping a human antibody to inhibit the interleukin 6-dependent tumor cell growth. Cancer Res. 1993 Feb 15;53(4):851-6.

[PMID:8428365](#)

**Note on publication:** Describes the generation of a reshaped human PM-1 antibody consisting of human REI-based light chain and NEW-based heavy chain variable regions constructed with the assistance of a structural model of the mouse PM-1 variable regions.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.