Catalog# BP-50542

# Tremelimumab Biosimilar, Human CTLA-4 monoclonal antibody

Tremelimumab (formerly ticilimumab) is a fully human monoclonal antibody against CTLA-4 / CD152. It is an immune checkpoint blocker. Unlike Ipilimumab (another fully human anti-CTLA-4 / CD152 monoclonal antibody), which is an IgG1 isotype, tremelimumab is an IgG2 isotype. Tremelimumab Biosimilar uses the same protein sequences as the therapeutic antibody tremelimumab.

Tremelimumab aims to stimulate an immune system attack on tumors. Cytotoxic T lymphocytes (CTLs) can recognize and destroy cancer cells. However, there is also an inhibitory mechanism (immune checkpoint) that interrupts this destruction. Tremelimumab turns off this inhibitory mechanism and allows CTLs to continue to destroy the cancer cells. This is immune checkpoint blockade.

Tremelimumab binds to the protein CTLA-4 / CD152, which is expressed on the surface of activated T lymphocytes and inhibits the killing of cancer cells. Tremelimumab blocks the binding of the antigen-presenting cell ligands B7.1 and B7.2 to CTLA-4 / CD152, resulting in inhibition of B7-CTLA-4-mediated downregulation of T-cell activation; subsequently, B7.1 or B7.2 may interact with another T-cell surface receptor protein, CD28, resulting in a B7-CD28-mediated T-cell activation unopposed by B7-CTLA-4-mediated inhibition.

| Product Details | |
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| CAS No. | 745013-59-6 |
| Species Reactivity | Human |
| Source | Mammalian cells |
| Isotype | Human IgG2 kappa |
| Class | Monoclonal |
| Type | Antibody |
| Clone | Tremelimumab Biosimilar |
| Conjugate | Unconjugated |
| Immunogen | Human protein receptor CD152 / CTLA4 |
| Purity | >95% |
| Molecular Weight | 146.38 kDa |
| Protein Concentration | 1 mg/ml |
| Formulation | 0.2 μM filtered PBS solution, pH 7.4 |
| Storage conditions | 4°C for short time, -20°C or -80°C for long time. |