



Monoclonal Anti-human CT-1 Antibody

ORDERING INFORMATION

Catalog Number: MAB260

Clone: 89228

Lot Number: DGJ02

Size: 500 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human CT-1

Immunogen: *E. coli*-derived rhCT-1

Ig class: mouse IgG_{2a}

Recommended Application:
Western blot

Other Application:
Direct ELISA

Background

Cardiotrophin-1 (CT-1) is a member of the IL-6 cytokine family. It was originally isolated based on its ability to induce cardiac myocyte hypertrophy *in vitro* but has since been shown to be a pleiotropic cytokine with overlapping actions with other IL-6 family members on a variety of cell types. Human CT-1 encodes a secreted 201 amino acid (aa) residue protein that lacks a hydrophobic signal peptide. Human and mouse CT-1 share 80% aa sequence identity.

Preparation

This antibody was produced from a hybridoma elicited from a mouse immunized with purified, *E. coli*-derived, recombinant human CT-1 (rhCT-1; aa 2 - 201; Accession # Q16619). The IgG fraction of the ascites fluid was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Endotoxin Level

< 0.1 EU per 1 µg of the antibody as determined by the LAL method.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 0.5 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody detects rhCT-1 in direct ELISAs and Western blots. In direct ELISAs, this antibody shows no cross-reactivity with rmCT-1.

Applications

Western blot – This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human CT-1. Using a colorimetric detection system, the detection limit for rhCT-1 is approximately 5 ng/lane under non-reducing and reducing conditions. Chemiluminescent detection will increase sensitivity by 5 to 50 fold.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human CT-1. The detection limit for rhCT-1 is approximately 10 ng/well.

Optimal dilutions should be determined by each laboratory for each application.