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Certificate of Analysis and Data Sheet

Rabbit anti-Human Cardiotrophin-1 antibody

Catalog No:
130-10032

Isotype:
Rabbit Ig G

Species:
Human

Accession No:
Q16619

Description

Cardiotrophin-1 (CT-1) is a cardiac hypertrophic factor and belongs to the IL-6 cytokine family. The protein interacts with the glycoprotein 130/leukemia inhibitory factor receptor beta heterodimer. CT-1 deficiency causes increased motoneuron cell death in spinal cord and brainstem nuclei of mice. In addition, CT-1 enhances transcription factor NF kappa B DNA-binding activities and activates phosphatidylinositol 3-kinase in cardiac myocytes. It is also highly expressed in the heart, prostate, skeletal muscle, and ovary, and expressed at the lower levels in lung, kidney, pancreas, thymus, small intestine, and testis. CT-1 is highly secreted by myotubes, and promotes the survival of cultured embryonic mouse and rat MNs. CT-1 is associated with pathophysiology of heart diseases, like hypertension, myocardial infarction, valvular heart disease, and congestive heart failure.

Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:40000 (at least detecting 25ng/ml)
Western Blotting			#	
Enzyme Immunoassay(EIA)			#	
Immunohistology - paraffin			#	
Immunoprecipitation			#	
Flow Cytometry			#	
Neutralization			#	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Preparation

Immunogen was synthetic peptide derived from Human CT-1. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum followed by Protein A/G affinity chromatography.

Binding Activity

The antibody can specifically bind to its immunogen, and did not show any cross reactivity with unrelated antigens in ELISA. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat Cardiotrophin-1 was not tested yet.

Reconstitution

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, liking Sodium Azide. ***It final concentration is indicated in shipping vial.***

The antibody is stable for at least years from the data of receipt when stored at -20°C to -70°C . Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at -20°C to -70°C in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at 4°C . **Please avoid freeze-thaw cycles.**

Storage

Store at -20°C , if not intended for use within a month, keep it at 4°C and minimize freezing and thawing when use.

Related products

1. Human Cardiotrophin-1 (CT-1) ELISA Kit (Cat# ELH-CT1-001)
2. Recombinant Human Cardiotrophin-1 (Cat# 230-00008)

Reference

Ronald W, et al. Cardiotrophin-1, a muscle-derived Cytokine, is required for the survival of subpopulations of developing motoneurons. *J Neurosci.* 2001. 21:1283-1291.

Arce V, et al. Cardiotrophin-1 requires LIFRbeta to promote survival of mouse motoneurons purified by a novel technique. *J Neurosci Res.* 1999. 55:119-126.

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