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Anti-CTGF , Mouse-Monoclonal Antibody

Catalog No. GB-52550 **Quantity:** 100μl **Applications tested:** ELISA, Western blot
Antigen species: Human **Reactivity:** Human **Host species:** Mouse
Type: IgG1 **Clone No.**: 24C11 **Form:** Ascites

Target description

Connective Tissue Growth Factor (CTGF) is a member of the CCN family of proteins, which regulates biological processes including stimulation of cell proliferation, migration and adhesion. The N-terminal domain of CTGF mediates myofibroblast differentiation and collagen synthesis. The C-terminal domain of CTGF mediates fibroblast proliferation. Although multiple target cell types have been identified for CCN proteins, there is strong evidence supporting a role for CTGF and CYR61 in the regulation of endothelial cell function and angiogenesis. The expression pattern of CTGF and CYR61 in endothelial cells of vessels in situ supports a role for these molecules in normal endothelial homeostasis, as well as participating in the angiogenic process during embryonic development, placentation , tumor formation, fibrosis and wound healing.

Antigen

This monoclonal antibody was raised by immunizing mouse with a E. coli derived CTGF (aa. 182-250) fusion protein .

Application

The antibody specificity was assayed by ELISA and Western blot analysis with the CTGF (aa. 182-250) fusion protein. However, for the first testing, we recommend 1/10,000 dilution for ELISA, 1/10,000 dilution for Western blot analysis (WB) of recombinant protein, 1/100 dilution for tissue extracts or cell lysates, 1/50 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1.Anti-CTGF rabbit polyclonal antibody (GB-10520)

2.Anti-CTGF mouse polyclonal antibody (GB-10516)

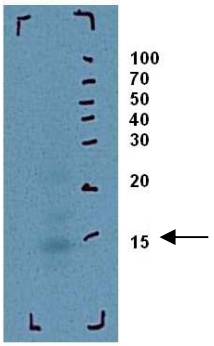
3.3.Anti-CTGF mouse monoclonal antibody (GB-52516)

ELISA:

Ab dilution	Pre-bleed	Ascites
1:1K	0.366	2.429
1:10K	0.276	2.030
1:100K	0.257	1.099
1:1000K	0.240	0.835
Titer		>1000 K

ELISA Protocol

Antigen is coated on EIA strips at 1μg per well. Add 200μl of blocking buffer and then wash wells with PBST buffer. Pre-bleed and ascites are diluted in series as the left and added in separate wells. Add substrate to develop color for 5 min. Read absorbance(ABS) at 650 nm. Antibody titer is defined as >0.1 of ABS of antiserum minus pre-bleed serum.



1μg E. coli derived protein as test antigen.

Western blotting Protocol

1. Block with 5%milk/PBST for 1 hour at RT.
2. Wash blot with 0.05% PBST 3 X 15 minutes.
3. Add 50,000X dilution of antibody.
4. Incubate for 1 hour at RT.
5. Wash blot with 0.05% PBST 3 X 15 minutes.
6. Add appropriate amount of correct secondary antibody,(goat anti-mouse antibody conjugated with HRP).
7. Incubate for 1 hour at RT.
8. Wash blot 3 X 15 minutes with 0.05% PBST at RT.
9. Add HRP substrate and develop

Storage

It is supplied as ascites of monoclonal antibody in lyophilized powder. Rehydrate the powder with 100 microliter sterile water will restore to the original condition. Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Kubota S., Takigawa M. CCN family genes in the development and differentiation of cartilage tissues. *Clin Calcium. 16(3):486-92, 2006.*
2. Grotendorst,G.R., Duncan,M.R. Individual domains of connective tissue growth factor regulate fibroblast proliferation and myofibroblast differentiation. *FASEB J. 19 (7), 729-738, 2005.*
3. Brigstock,D.R. Regulation of angiogenesis and endothelial cell function by connective tissue growth factor (CTGF) and cysteine-rich 61(CYR61). *Angiogenesis 5 (3), 153-165, 2002.*