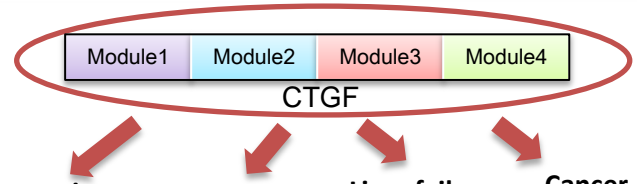


For rheumatology and tissue fibrosis research

Anti CTGF, Monoclonal Antibody

CTGF is a secreted protein of about 38 kDa produced from umbilical veins and vascular endothelial cells. CTGF is consist of four modules, and regulates chondrocyte proliferation / differentiation and intercellular adhesion. Some reports showed that CTGF is involved in various diseases such as cancer, renal failure, liver failure and rheumatism. This items are mouse monoclonal antibodies established by DNA immunization, specifically react with native form CTGF. It has neutralizing activity.



Features

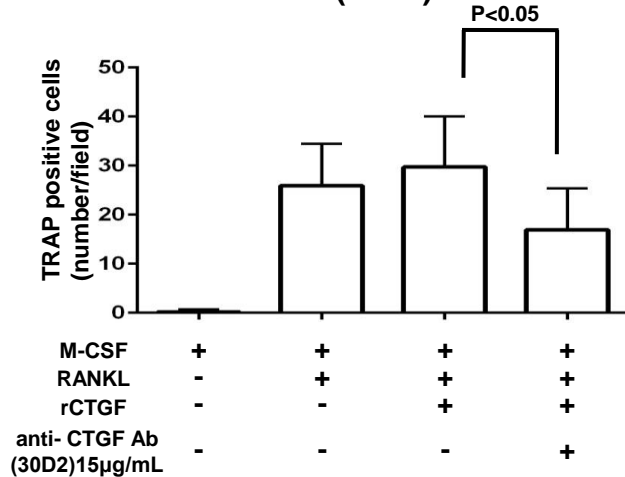
■ **CTGF Neutralizing Activity**
Suppression of arthritis model animals (mice)

■ **Each 4 clone recognizes each module 1, 2, 3 and 4, respectively.**

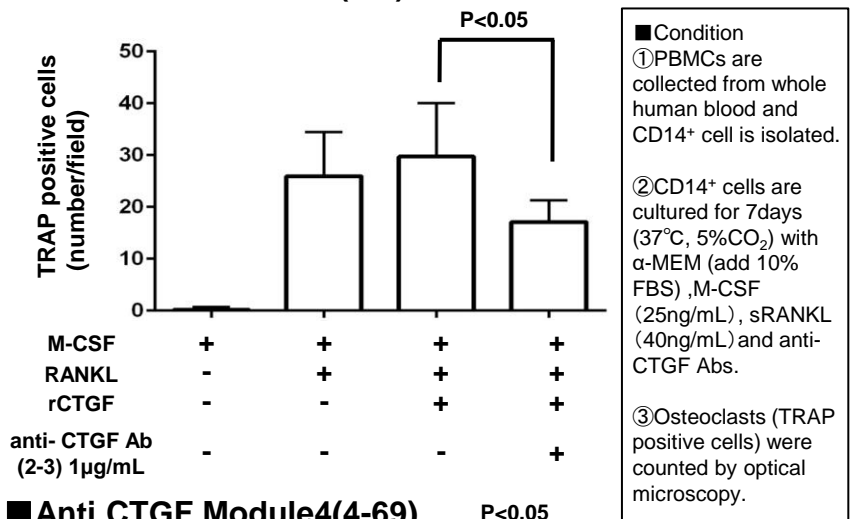
Epitope	Clone No.	Cross-reactivity	Subclass	Applications	Concentration (1st lot)
Module1	30D2	Human Mouse	Mouse IgG1	in vitro/ in vivo neutralization ELISA	0.8mg/mL
Module2	2-3	Human, Mouse	Mouse IgG1	In vitro neutralization	0.9mg/mL
Module3	3-54	Human, Mouse	Mouse IgG1	In vitro neutralization	1mg/mL
Module4	4-69	Human, Mouse	Mouse IgG1	In vitro neutralization	0.7mg/mL

in vitro neutralization assay - inhibition of osteoclastogenesis-

■ Anti CTGF Module1(30D2)

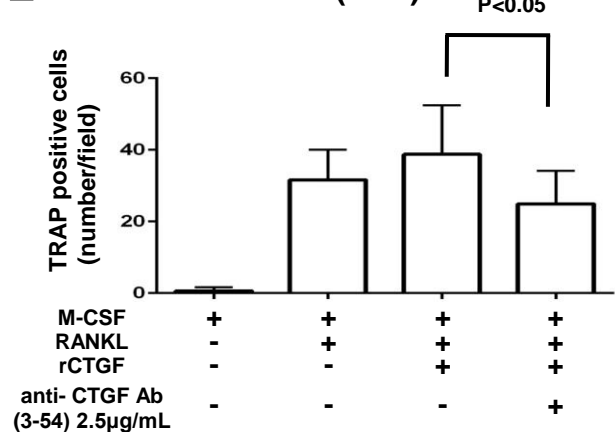


■ Anti CTGF Module2(2-3)

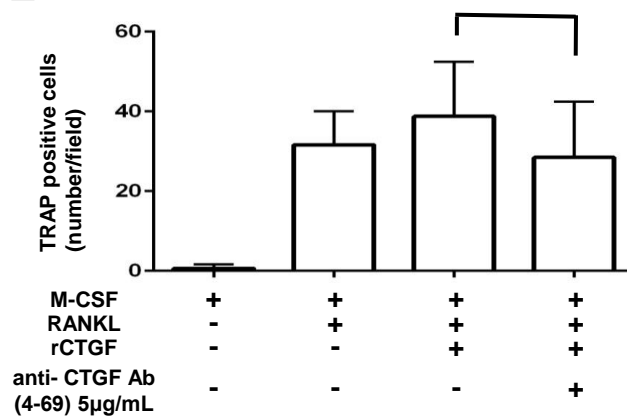


■ Condition
①PBMCs are collected from whole human blood and CD14⁺ cell is isolated.
②CD14⁺ cells are cultured for 7days (37°C, 5%CO₂) with α-MEM (add 10% FBS), M-CSF (25ng/mL), sRANKL (40ng/mL) and anti-CTGF Abs.
③Osteoclasts (TRAP positive cells) were counted by optical microscopy.

■ Anti CTGF Module3(3-54)



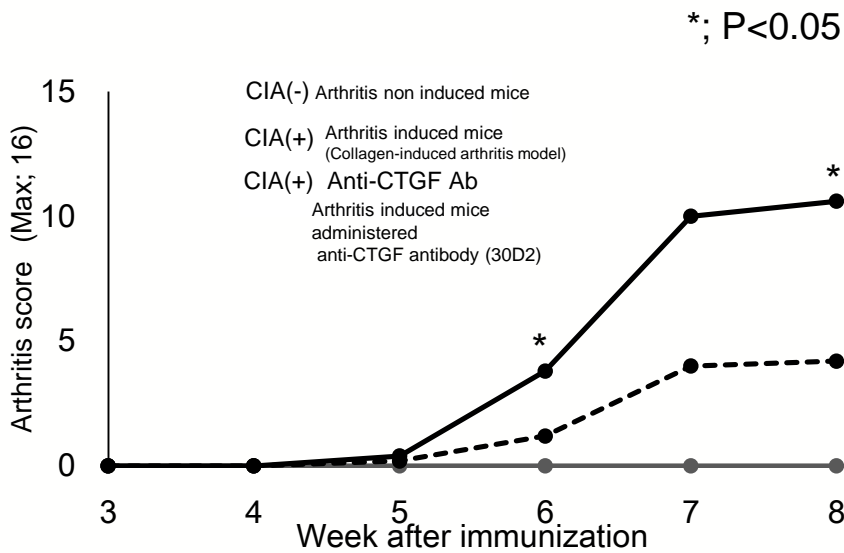
■ Anti CTGF Module4(4-69)



Enhancement of osteoclastogenesis by CTGF were repressed all CTGF antibodies.

in vivo neutralization assay -suppression of arthritis model animals (mice)-

Anti CTGF Module1(30D2)



Condition

DBA/1J mice (Female, 7-8 weeks of age) were immunized intradermally at the base of the tail with 100 µL of emulsion (in which emulsified in equal amounts of bovine type II collagen and Freund's complete adjuvant (CFA)). The anti-CTGF antibody was intraperitoneally administered 1 week before the start of immunization, and administered once a week for a total of 8 times. Evaluation of limb arthritis was performed once a week until immunization for 8 weeks. (Refer to the table below for evaluation criteria)

Arthritis point criteria

point	Observation
0	No change
1	Regional reddening of the limbs, or swelling and reddening of one finger.
2	Swelling of limbs' joints, or swelling of two or more fingers
3	Medium – prominent swelling of hands and feet.
4	Remarkable swelling and reddening of limbs, or hardening.

※ The above point is the total point of the limbs.

Mice treated with anti-CTGF module1 Ab significantly suppressed arthritis compared to the untreated mice with collagen induced arthritis.

This data was provided by Dr. Nozawa and Dr. Sekigawa of Institute for Environmental and Gender Specific Medicine, Juntendo University in Japan

Reference

- Ikawa, Y., et al.: *J. Cell Physiol.*, 216, 3, 680(2008).
- Nozawa, K., et al.: *Arthritis Rheum.*, 65, 6, 1477 (2013).
- Miyashita, T., et al.: *Autoimmunity.*, 49, 2,109 (2016).
- Miyazaki O, et al.: *Ann. Clin. Biochem.*, 47, 205(2010).

Product Name	Wako Cat. No	Pkg. Size	Grade	Storage Condition
Anti CTGF Module1, Monoclonal Antibody(30D2)	012-27421	10µL	For	Keep at -20°C
	018-27423	50µL	Immunochemistry	
Anti CTGF Module2, Monoclonal Antibody(2-3)	019-27431	10µL	For	Keep at -20°C
	015-27433	50µL	Immunochemistry	
Anti CTGF Module3, Monoclonal Antibody(3-54)	016-27441	10µL	For	Keep at -20°C
	012-27443	50µL	Immunochemistry	
Anti CTGF Module4, Monoclonal Antibody(4-69)	013-27451	10µL	For	Keep at -20°C
	019-27453	50µL	Immunochemistry	

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