

Anti-CD3 mAb GMP grade

Code No. T210

Size: 1.0 mg / 1.0 ml

Description:

Anti-CD3 antibodies are commonly used in T lymphocyte proliferation protocols. Among many available clones, "OKT3" (mouse IgG2a) is the most commonly used. This monoclonal anti-CD3 antibody (clone OKT3) is manufactured as a quality-assured product, according to relevant PIC/S guidelines for Good Manufacturing Practice (GMP). This product can be used for *ex vivo* cell culture processing and is limited to investigational use only.

Storage: Store at or below -70°C

Source: Mouse hybridoma cells

Purity: >95% by HPLC

Form: Sterile solution in phosphate-buffered saline (PBS), pH 7.4, with 200 ppm polysorbate 80.

Packaging: 1.0 mg protein/1.0 ml in a 2 ml cryovial

Applications:

- CIK (cytokine-induced killer) cell expansion by stimulation with Anti-CD3 mAb GMP grade and cytokine.
- T lymphocyte expansion by co-stimulation with Anti-CD3 mAb GMP grade and RetroNectin®.

Instructions For Use:

1) Protocol for antibody immobilization
Anti-CD3 mAb GMP grade can be coated on the surface of cell culture dishes, petri dishes, flasks, or bags (e.g., CultiLife™ 215 Culture bag (Cat. #FU0005) or other gas-permeable bags capable of being coated with anti-CD3 mAb). Use a concentration of 5 - 10 µg/ml to cover the surface at 1 - 2 µg/cm².

1. Prior to coating, adjust the Anti-CD3 mAb GMP grade solution to a desired concentration (ranging from 5 to 10 µg protein/ml) by diluting with sterile PBS.
2. Dispense an appropriate volume of sterile Anti-CD3 mAb GMP grade solution to the cell culture vessel, and allow to stand for 2 - 6 hours at room temperature or at 4°C overnight.
3. Remove the Anti-CD3 mAb GMP grade solution, and then add wash solution (e.g., PBS).
4. Remove the wash solution. At this point, the surface has been coated with Anti-CD3 mAb GMP grade and is ready for use.

2) Protocol for soluble stimulation
Anti-CD3 mAb GMP grade can be added directly to the culture at a concentration of 50 - 100 ng/ml.

Precautions:

- Work under sterile conditions.
- Once thawed, use the necessary quantity of thawed solution and discard any unused solution.

[Note]

The thawed solution is stable for 3 days at room temperature. Repeated freezing and thawing is not recommended. Performance of this product is not guaranteed after storage at room temperature or after freezing and thawing.

Quality Statement:

1. Anti-CD3 mAb GMP grade is manufactured according to relevant PIC/S GMP guidelines.
2. No animal- or human- derived components are used in the manufacture of this product.
3. This product is for research use and *ex vivo* cell culture processing only. It is not intended for human *in vivo* application; do not inject or infuse this product directly into a patient.

References:

- 1) Kawamura A Jr, Sekine T, Sekiguchi M, Yanoma S, Kaneko A, Haneda T, Moriya Y, Hayasaka K, and Kakizoe T. Six-year disease-free survival of a patient with metastatic eyelid squamous cell carcinoma and colon adenocarcinoma after repeated postoperative adoptive immunotherapy. *Jpn J Clin Oncol.* (2000) **30**(6): 267-271.
- 2) Chono H, Goto Y, Yamakawa S, Tanaka S, Tosaka Y, Nukaya I, and Mine-no J. Optimization of lentiviral vector transduction into peripheral blood mononuclear cells in combination with the fibronectin fragment CH-296 stimulation. *J Biochem.* (2011) **149**(3): 285-292.
- 3) Ciceri F, Bonini C, Stanghellini MT, Bondanza A, Traversari C, Salomoni M, Turchetto L, Colombi S, Bernardi M, Peccatori J, Pescarollo A, Servida P, Magnani Z, Perna SK, Valtolina V, Crippa F, Callegaro L, Spoldi E, Crocchiolo R, Fleischhauer K, Ponzone M, Vago L, Rossini S, Santoro A, Todisco E, Apperley J, Olavarria E, Slavin S, Weissinger EM, Ganser A, Stadler M, Yannaki E, Fassas A, Anagnostopoulos A, Bregni M, Stampino CG, Bruzzi P, and Bordignon C. Infusion of suicide-gene-engineered donor lymphocytes after family haploidentical haemopoietic stem-cell transplantation for leukaemia (the TK007 trial): a non-randomised phase I-II study. *Lancet Oncol.* (2009) **10**(5): 489-500.
- 4) Dudley ME, Wunderlich JR, Yang JC, Sherry RM, Topalian SL, Restifo NP, Royal RE, Kammula U, White DE, Mavroukakis SA, Rogers LJ, Gracia GJ, Jones SA, Mangiameli DP, Pelletier MM, Gea-Banacloche J, Robinson MR, Berman DM, Filie AC, Abati A, and Rosenberg SA. Adoptive cell transfer therapy following non-myeloablative but lymphodepleting chemotherapy for the treatment of patients with refractory metastatic melanoma. *J Clin Oncol.* (2005) **23**(10): 2346-2357.
- 5) Lamers CH, Willemsen RA, Luider BA, Debets R, and Bolhuis RL. Protocol for gene transduction and expansion of human T lymphocytes for clinical immunogene therapy of cancer. *Cancer Gene Ther.* (2002) **9**(7): 613-623.
- 6) Li JJ, Gu MF, Pan K, Liu LZ, Zhang H, Shen WX, and Xia JC. Autologous cytokine-induced killer cell transfusion in combination with gemcitabine plus cisplatin regimen chemotherapy for metastatic nasopharyngeal carcinoma. *J Immunother.* (2012) **35**: 189 - 195.
- 7) Dodo K, Chono H, Saito N, Tanaka Y, Tahara K, Nukaya I, and Mineno J. An Efficient Large-Scale Retroviral Transduction Method Involving Preloading the Vector into a RetroNectin-Coated Bag with Low-Temperature Shaking. *PLoS ONE.* (2014) **9**(1): e86275. doi:10.1371/journal.pone.0086275

Related Products:

RetroNectin® GMP grade (Cat. #T201)
LymphoONE™ T-Cell Expansion Xeno-Free Medium, 1L Bottle
(Cat. #WK552S)

RetroNectin is a registered trademark of Takara Bio Inc.
CultiLife and LymphoONE are trademarks of Takara Bio Inc.

Note

This product is to be used for research use or non-commercial manufacturing for clinical research. This product is not intended for humans or animals *in-vivo* applications. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval. If you require licenses for other use, please contact us by phone at +81 77 565 6972 or e-mail: bio-licensing@takara-bio.co.jp. Your use of this product is also subject to compliance with any applicable licensing requirements described on the product web page. It is your responsibility to review, understand and adhere to any restrictions imposed by such statements. All trademarks are the property of their respective owners. Certain trademarks may not be registered in all jurisdictions.