IBL Data Sheet

Code No. 10031

Anti-
Tob (4B1) Mouse IgG MoAb

Volume : 200 µg

Introduction : Tob (Transducing molecule of c-ErbB-2) was identified as a molecule that binds to the receptor tyrosine kinase c-ErbB2 in 1996.
After that, Tob2, BTG1, PC3/TIS21/BTG2, ANA, PC3B etc were found as proteins with a homologous region at about 110 amino acids on the N-terminal side, and are called Tob family proteins.
Tob family proteins are known to suppress cell proliferation when compulsorily expressed in cultured cells.
This proliferative suppression occurs by blocking the expression of cyclin D1.
On the other hand, Tob is rapidly phosphorylated at Ser152, Ser154 and Ser164 by Erk1/2 upon growth-factor stimulation.
It is suggested that this phosphorylation cancels the suppression of cyclin D1 expression.
Thus, it is to thought be Tob and its phosphorylation have important role in the progression from G0 to G1 in the cell cycle.

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Antigen : Recombinant Tob

Source : Mouse-Mouse hybridoma
(X63 - Ag 8.653 × BALB/c mouse spleen cells, supernatant)

Clone : 4B1 **Subclass** : IgG_{2a}

Purification : Affinity purified with protein A

Form : Lyophilized product from 1 % BSA in PBS containing 0.05 % NaN_3

How to use : 1.0 mL deionized water will be added to the product, then its concentration comes to 200 µg/mL

Stability : Lyophilized product, 5 years at 2 - 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues after microwave treatment by several techniques such as Avidin Biotin Complex (ABC) Method. The optimal concentration is 1 - 3 µg/mL, however, the concentration should be optimized by each laboratory.
: This antibody can be used for western blotting in concentration of 1 µg/mL

Reference :

1. Yoshida Y, Tanaka S, Umemori H, Minowa O, Usui M, Ikematsu N, Hosoda E, Imamura T, Kuno J, Yamashita T, Miyazono K, Noda M, Noda T, Yamamoto T.Negative regulation of BMP/Smad signaling by Tob in osteoblasts.Cell. 2000 Dec 22;103(7):1085-97.
2. Maekawa M, Nishida E, Tanoue T.Identification of the Anti-proliferative protein Tob as a MAPK substrate.J Biol Chem. 2002 Oct 4;277(40):37783-7.
3. Suzuki T, K-Tsuzuku J, Ajima R, Nakamura T, Yoshida Y, Yamamoto T.Phosphorylation of three regulatory serines of Tob by Erk1 and Erk2 is required for Ras-mediated cell proliferation and transformation.Genes Dev. 2002 Jun 1;16(11):1356-70.

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