APC972Hu01 100μg
Active Transforming Growth Factor Beta Receptor II (TGFbR2)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Thr23~Gln166
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 4.9
Predicted Molecular Mass: 20.0kDa
Accurate Molecular Mass: 22kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

TIPPHVQK SVNNDMIVTD NNGAVKFPQL
CKFCDVRFST CDNQKSCMSN CSITSICEKP QEVCVAVWRK NDENITLETV
CHDPKLPYHD FILEDAASPK CIMKEKKKPG ETFFMCSCSS DECNDNIIFS
EEYNTSNPDL LLVIFQ

[ACTIVITY]

Transforming growth factor beta receptor 2 (TGFBR2) is a tumor suppressor gene that plays a role in the differentiation of striated cells and remodeling of coronary arteries. Single nucleotide polymorphisms (SNPs) of this gene are associated with Marfan syndrome and sudden death in patients with coronary artery disease. Cardiovascular remodeling and T cell activation of TGFBR2 gene suggest that the TGFBR2 gene SNPs are related to the pathogenesis of Kawasaki disease (KD) and coronary artery lesion (CAL). Endoglin can regulate endothelial cell shape changes in response to blood flow, which drive vascular remodeling and establishment of normal vascular morphology during angiogenesis. A functional ELISA assay was conducted to detect the interaction of recombinant human TGFBR2 and recombinant rat Endoglin (ENG). Briefly, TGFBR2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to ENG-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-TGFBR2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human TGFBR2 and recombinant rat ENG was

shown in Figure 1, the EC50 for this effect is 36.1 ng/mL.

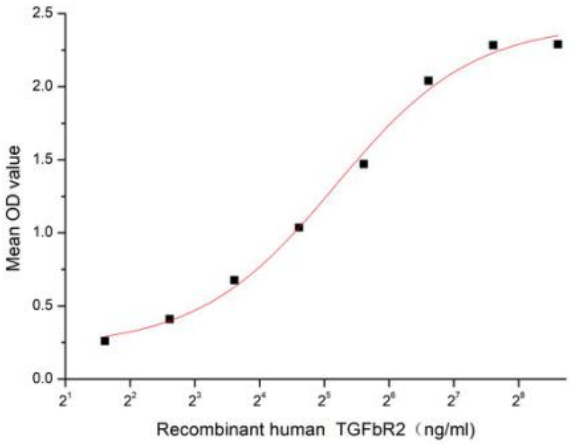

Figure 1. The binding activity of recombinant human TGFBR2 and recombinant rat ENG

[IDENTIFICATION]

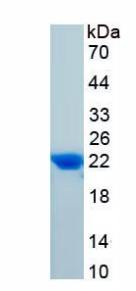

Figure 2. SDS-PAGE

Sample: Active recombinant TGFbR2, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.