APC105Mu01 100μg
Active Bone Morphogenetic Protein 8B (BMP8B)
Organism Species: *Mus musculus (Mouse)*
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: Gly20~His399
Tags: N-terminal His-tag
Purity: >90%
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: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.4
Predicted Molecular Mass: 46.7kDa
Accurate Molecular Mass: 47kDa 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]

G GHLSHPPHVF PQRRLGVREP RDMQREIREV
LGLPGRPRSR APVGAAQQPA SAPLFMLDLY RAMTDDSGGG TPQPHLDRAD
LIMSFVNIVE RDRTLGYQEP HWKEFHFDLT QIPAGEAVTA AEFRIYKEPS
THPLNTTLHI SMFEVVQEHS NRESDLFFLD LQTLRSGDEG WLVLDITAAS
DRWLLNHHKD LGLRLYVETE DGHSIDPGLA GLLGRQAPRS RQPFMVGFFR
ANQSPVRAPR TARPLKKKQL NQINQLPHSN KHLGILDDGH GSHGREVCRR
HELYVSFRDL GWLDSVIAPQ GYSAYYCAGE CIYPLNSCMN STNHATMQAL
VHLMKPDIIP KVCCVPTELS AISLLYYDRN NNVILRRERN MVVQACGCH

[ACTIVITY]

Bone Morphogenetic Protein 8B (BMP8B) is a protein that belongs to the bone morphogenetic protein family, which is involved in the regulation of growth and differentiation of various cell types, including osteoblasts, chondrocytes, and neurons. It plays a role in skeletal development and tissue repair processes.Besides,Bone Morphogenetic Protein 8A (BMP8A) has been identified as an interactor of BMP8B, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse BMP8B and recombinant human BMP8A. Briefly, a functional ELISA assay was conducted to detect the interaction of recombinant mouse BMP8B and recombinant human BMP8A. Briefly, BMP8B was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to BMP8A-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-BMP8B 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 mouse BMP8B and recombinant human BMP8A was shown in Figure 1, the EC50 for this effect is 0.078ug/mL.

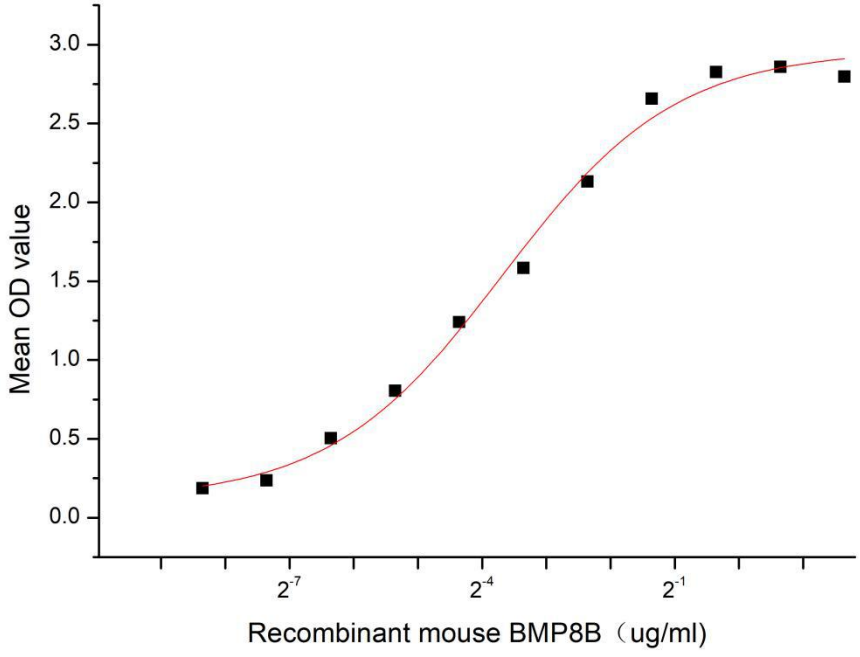

Figure 1. The binding activity of recombinant mouse BMP8 and human BMP8A

[IDENTIFICATION]

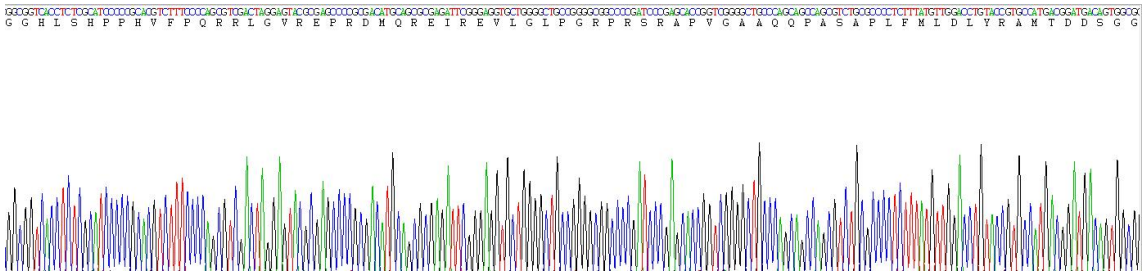

Figure 2. Gene Sequencing (extract)

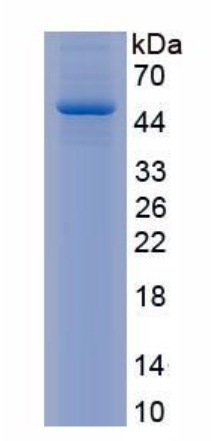

Figure 3. SDS-PAGE

Sample: Active recombinant BMP8B, Mouse

[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.