APB650Hu02 100μg
Active Major Basic Protein (MBP)
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: Gln105~Tyr222
Tags: N-terminal His and GST Tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 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: 11.4
Predicted Molecular Mass: 46.9kDa
Accurate Molecular Mass: 44kDa 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]

QTCRYL LVRSLQTFSQ AWFTCRRCYR GNLVSIHNFN INYRIQCSVS
ALNQGQVWIG GRITGSGRCR RFQWVDGSRW NFAYWAAHQP WSRGGHCVAL
CTRGGHWRRA HCLRRLPFIC SY

[ACTIVITY]

Myelin basic protein (MBP), a 18.5-kDa encephalitogenic peptide, is the second most abundant in central nervous system and responsible for adhesion of the cytosolic surfaces of multilayered compact myelin, MBP is biased expressed in cerebellum adult and cortex adult. It can interact with a number of polyanionic proteins including actin, tubulin, Ca(2+)-calmodulin, and clathrin, and negatively charged lipids, and acquires structure on binding to them. Calmodulin Like Protein 3 (CALML3) is a kind of Ca(2+)-calmodulin, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human MBP and recombinant human CALML3.Briefly, MBP was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CALML3-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-MBP 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 ecombinant human MBP and recombinant human CALML3 was shown in Figure 1, the EC50 for this effect is 0.081μg/mL..

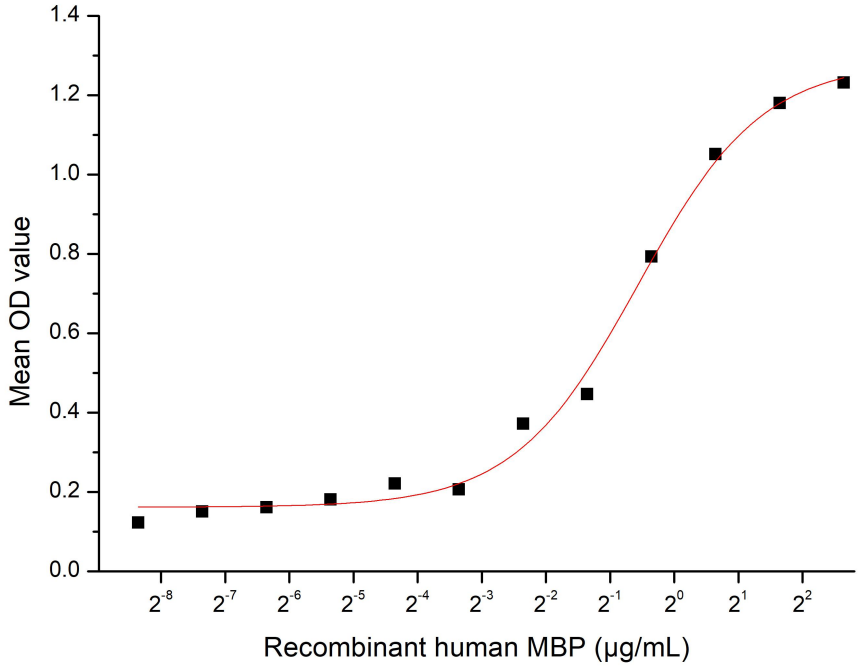

Figure 1. The binding activity of recombinan human MBP and recombinan human CALML3

[IDENTIFICATION]

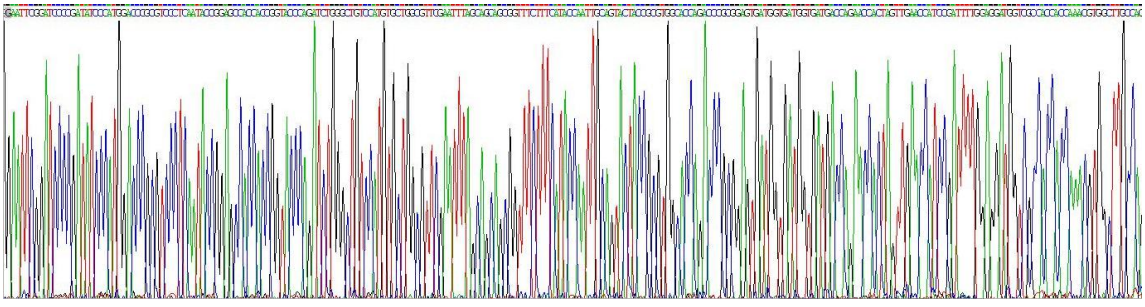

Figure 2. Gene Sequencing (extract)

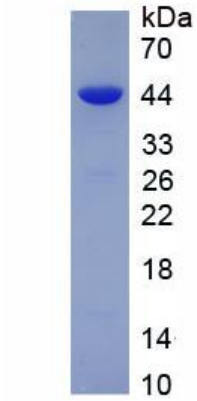

Figure 3. SDS-PAGE

Sample: Active recombinant MBP, 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.