

# Active Bone Morphogenetic Protein 4 (BMP4) Instruction Manual

**SBPA009Hu02**

**Homo sapiens (Human)**

**Buffer Formulation**

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 97%

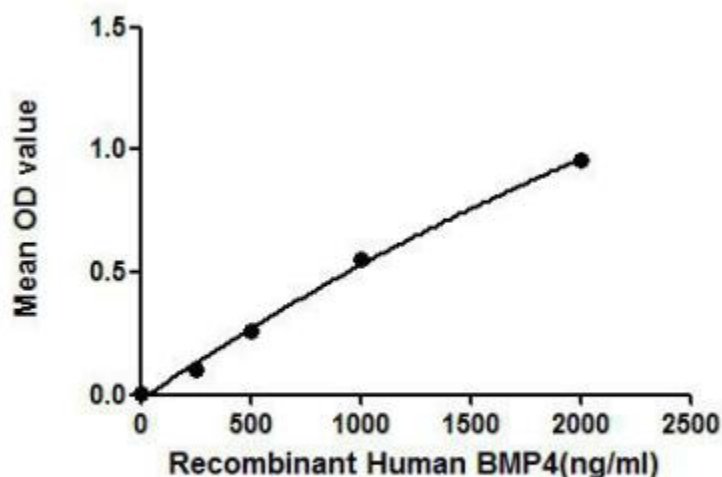
**Isoelectric Point**

9.0

**Applications**

Cell culture; Activity Assays.

## ACTIVITY TEST



**Figure 1. The binding activity of BMP4 with HJV.**

BMP4 (Bone morphogenetic protein 4) is a member of the bone morphogenetic protein family, which is involved in bone and cartilage development, specifically tooth and limb development and fracture repair. It has been proven that HJV (Hemojuvelin) acts as a coreceptor of BMPs, including BMP4; therefore, a binding ELISA assay was constructed to detect the association of recombinant human BMP4 with recombinant human HJV. Briefly, BMP4 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to HJV-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-BMP4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50μL stop solution to the wells and

read at 450nm immediately. The binding activity of BMP4 with HJV was shown in Figure 1 and this effect was in a dose dependent manner.

## USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

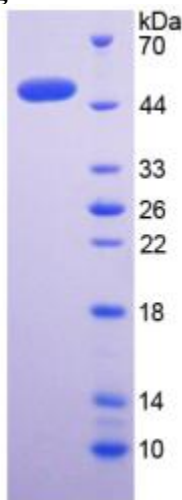
## STORAGE

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

## STABILITY

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 37°C 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.

## Image



SDS-PAGE Image

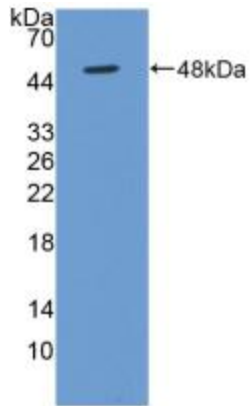


Figure. Western Blot; Sample: Recombinant BMP4, Human.

**[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.