

APB831Hu61 100µg
Active Hedgehog Homolog, Sonic (SHH)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Pro36~Ala193

Tags: N-terminal His-tag

Purity: >97%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 5% trehalose.

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.1

Predicted Molecular Mass: 19.5kDa

Accurate Molecular Mass: 20kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C 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 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.

[SEQUENCE]

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PKKLT PLAYKQFIPN  
VAEKT LGASG RYEGKISRNS ERFKELTPNY NPDIIFKDEE NTGADRLMTQ  
RCKDKLNALA ISVMNQWPGV KLRVTEGWDE DGHHSEESLH YEGRAVDITT  
SDRDRSKYGM LARLAVEAGF DWVYYESKAH IHCSVKAENS VAA
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[ACTIVITY]

Sonic Hedgehog (Shh) is expressed in embryonic tissues that are critical for the patterning of the developing central nervous system, somite, and limb. It is also involved in whisker, hair, foregut, tooth, and bone development. Shh regulates neural and hematopoietic stem cell fate and is important for thymocyte differentiation and proliferation as well as T cell determination. In adult tissue Shh is associated with cancer development and tissue remodeling following injury. It has been reported that SHH can induce alkaline phosphatase production in C3H10T1/2 mouse embryonic fibroblast cells. To test the bioactivity of SHH, C3H10T1/2 cells were seeded into 24-well plate at a density of 1×10^5 cells/mL, and allowed to attach overnight before treated with certain concentrations of SHH for 24h and alkaline phosphatase levels in the cell supernatant were determined by ELISA. Alkaline phosphatase levels in the cell supernatant of C3H10T1/2 cells increased significantly after stimulated with SHH have shown in Figure1.

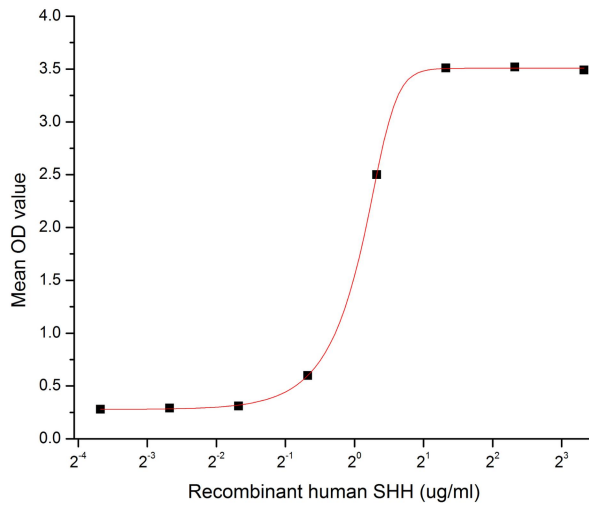


Figure1. Alkaline phosphatase levels in the cell supernatant of C3H10T1/2 induced by SHH

[IDENTIFICATION]

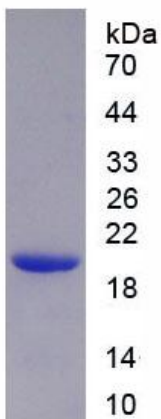


Figure 2. SDS-PAGE

Sample: Active recombinant SHH, Human

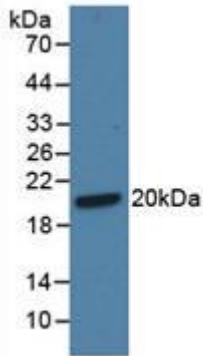


Figure 3. Western Blot

Sample: Recombinant SHH,Human;

Antibody: Rabbit Anti- Human SHH Ab (PAB831Hu06)

[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.