

APC130Hu01 100µg
Active Active Noggin (NOG)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Gln28~Cys232

Tags: N-terminal His-tag

Purity: >95%

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

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 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: 9.1

Predicted Molecular Mass: 24.3kDa

Accurate Molecular Mass: 24kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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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QHY LHIRPAPSDN LPLVDLIEHP
DPIIFDPKEKD LNETLLRSLG GGHYDPGFMA TSPPEDRPGG GGAAGGAED
LAELDQLLRQ RPSGAMPSEI KGLEFSEGLA QGKKQRLSKK LRRKLQMWLW
SQTFCPVLVA WNDLGSRFWP RYVKVGSCFS KRSCSVPEGM VCKPSKSVHL
TVLRWRCQRR GGQRCGWIPI QYPIIASECK SC
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[ACTIVITY]

Noggin, also known as NOG, is a protein that is involved in the development of many body tissues, including nerve tissue, muscles, and bones. Noggin is a signaling molecule that plays an important role in promoting somite patterning in the developing embryo. It is released from the notochord and regulates bone morphogenic protein (BMP4) during development. It also causes formation of the head and other dorsal structures. Besides, Growth Differentiation Factor 5 (GDF5) has been identified as an interactor of NOG, thus a binding ELISA assay was conducted to detect the interaction of recombinant human NOG and recombinant human CDF5. Briefly, NOG were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to CDF5-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-NOG 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 NOG and CDF5 was shown in Figure 1, and this effect was in a dose dependent manner.

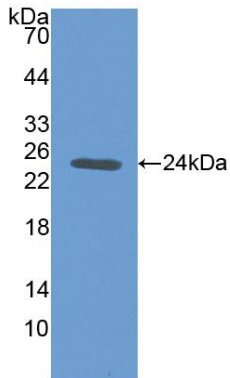


Figure 4. Western Blot

Sample: Recombinant NOG, Human;

Antibody: Rabbit Anti-Human NOG Ab (PAC130Hu01)

[IMPORTANT NOTE]

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