

# Active Noggin (NOG) Instruction Manual

**SBPC082Ra02**

**Rattus norvegicus (Rat)**

**Buffer Formulation**

PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 97%

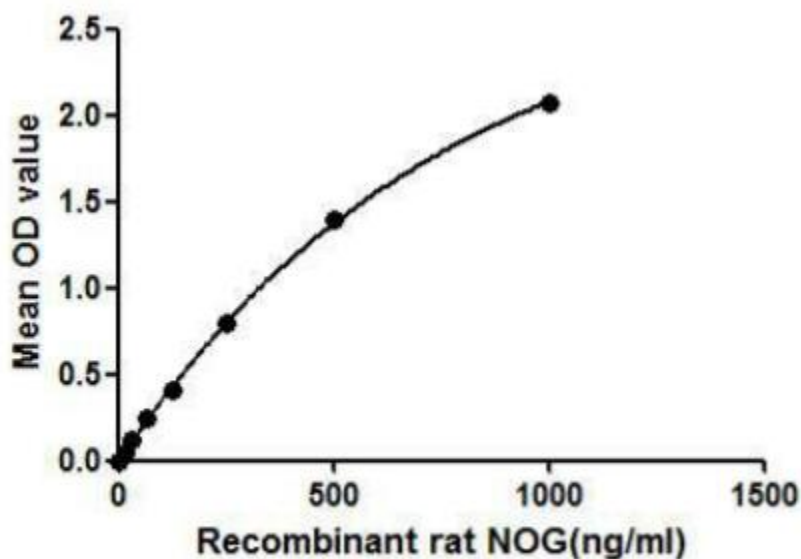
**Isoelectric Point**

6.6

**Applications**

Cell culture; Activity Assays.

## ACTIVITY TEST



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

NOG (Noggin) is a signaling molecule that plays an important role in promoting somite patterning in the developing embryo, essential for cartilage morphogenesis and joint formation. It is considered as an inhibitor in bone morphogenetic proteins (BMP) signaling, by binding with BMP4, thus a binding ELISA assay was conducted to detect the association of recombinant rat NOG with BMP4. Briefly, NOG were diluted serially in PBS with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to BMP4-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 with BMP4 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

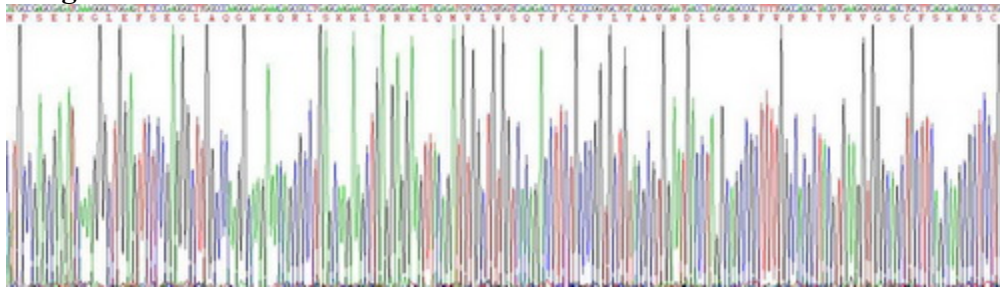


Figure. SDS-PAGE; Sample: Active recombinant NOG, Rat.

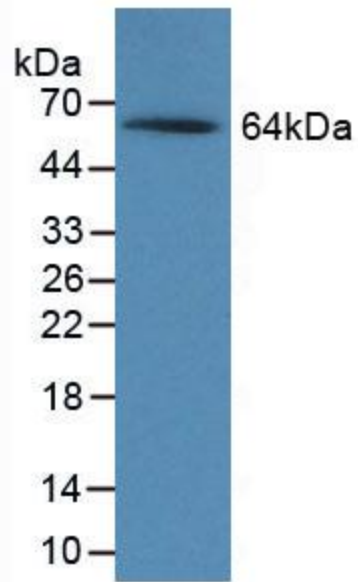


Figure. Western Blot; Sample: Recombinant NOG, Rat.

**[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.