# Active Noggin (NOG)

*Catalog#:PER12822*

## 概述（Summary）

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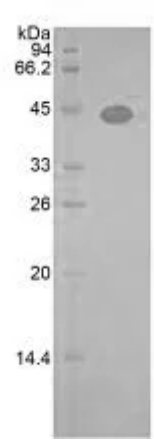
|---|---|
| **别称（Alternative Names）** | SYM1; SYNS1; Synostoses(Multiple)Syndrome 1; Symphalangism 1(Proximal) |
| **纯度（Purity）** | Greater than 90% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Met28-Cys144】 |
| **Accession #** | Q62809 |
| **表达宿主（Host）** | E.coli |
| **种属（Species）** | Rattus norvegicus (Rat) |
| **预测分子量（Predicted MW）** | 43.6 kDa |
| **制剂（Form）** | Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| **运输方式（Shipping）** | The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below. |
| **稳定性&储存（Stability &Storage）** | 12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles. |
| **复溶（Reconstitution）** | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex. |
| **背景介绍（References）** | Essential for cartilage morphogenesis and joint formation. Inhibitor of bone morphogenetic proteins (BMP) signaling which is required for growth and patterning of the neural tube and somite. Inhibits chondrocyte differentiation through its interaction with GDF5 and, probably, GDF6. |

## 电泳图（SDS-PAGE image）




Greater than 90% as determined by reducing SDS-PAGE.

## 活性图（Bioactivity image）

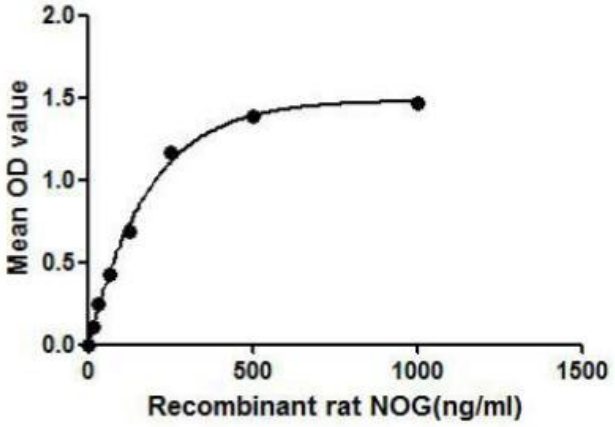



**Figure 1. The binding activity of NOG with BMP4.**

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.

## 注意事项（Note）

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