# Active Galectin 1 (GAL1)

*Catalog#:PEV12342*

## 概述（Summary）

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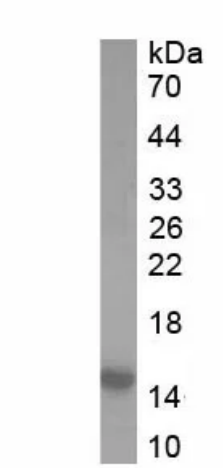
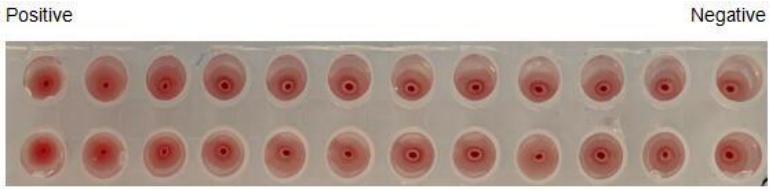
| **别称（Alternative Names）** | LGALS1; GBP; HLBP14; Galaptin; Lectin,Galactoside-Binding Soluble 1; 14 kDa laminin-binding protein; Lactose-binding lectin 1; Putative MAPK-activating protein PM12; S-Lac lectin |
| **纯度（Purity）** | Greater than 90% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Met1-Glu135】 |
| **Accession #** | P11116 |
| **表达宿主（Host）** | E.coli |
| **种属（Species）** | Bos taurus; Bovine (Cattle) |
| **预测分子量（Predicted MW）** | 16.0 kDa |
| **制剂（Form）** | Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex. |
| **背景介绍（References）** | Lectin that binds beta-galactoside and a wide array of complex carbohydrates. Plays a role in regulating apoptosis, cell proliferation and cell differentiation. Inhibits CD45 protein phosphatase activity and therefore the dephosphorylation of Lyn kinase. Strong inducer of T-cell apoptosis. |

## 电泳图（SDS-PAGE image）




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

## 活性图（Bioactivity image）




Galectins are a family of carbohydrate-binding proteins with an affinity for beta-galactosides. Galectin-1 (GAL1) is differentially expressed by various normal and pathological tissues and appears to be functionally polyvalent, with a wide range of biological activity. The intracellular and extracellular activity of GAL1 has been described. Evidence points to GAL1 and its ligands as one of the master regulators of such immune responses as T-cell homeostasis and survival, T-cell immune disorders, inflammation and allergies as well as host-pathogen interactions.It also can agglutinate red blood. In this case, chose rabbit erythrocyte (RaE) to assay its ability of agglutination. A general procedure for hemagglutination assay (or haemagglutination assay; HA) is as follows, two-fold dilute the recombinant cattle GAL1 with 0.9% sodium chloride injection, add 50μL a serial dilution of GAL1 to each well of a U or V-bottom shaped 96-well microtiter plate. The final well serves as a negative control without GAL1, replace with 50μL 0.9% sodium chloride injection. Then add 50μL 1% rabbit erythrocyte to each well and mixed gently. The plate is incubated for 3 hours at room temperature. The results are shown in Figure 1. It was obvious that the minimal effective concentration of GAL1 is 2.5μg/mL. Figure 2. The hemagglutination assay of GAL1 in V- bottom shaped 96-well microtiter plate.

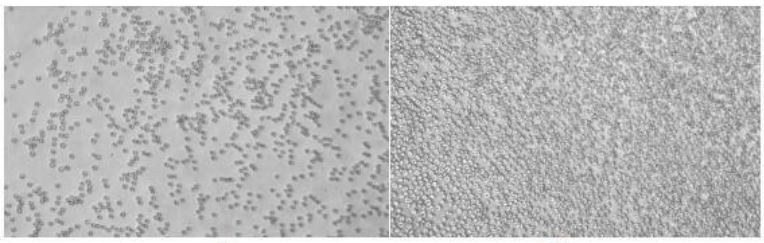



Figure 1. The hemagglutination of recombinant cattle GAL1.
(A) 1% RaE tread with 2.5μg/ml GAL1 for 2h;
(B) Negative control without GAL1.

## 注意事项（Note）

For Research Use Only , Not for Diagnostic Use.