

Datasheet for ABIN6239815

Galectin 9 Protein (AA 1-355) (His tag,GST tag)**3** Images[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	Galectin 9 (LGALS9)
Protein Characteristics:	AA 1-355
Origin:	Human
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This Galectin 9 protein is labelled with His tag,GST tag.
Application:	Activity Assay (AcA), Cell Culture (CC)

Product Details

Characteristics:	Tag location: N-terminal His and GST Tag
Purity:	> 90 %
Biological Activity Comment:	<p>GAL9 (Galectin-9) belongs to the galectin family, which is defined by their binding specificity for β-galactoside sugars, such as N-acetyllactosamine (Galβ1-3GlcNAc or Galβ1-4GlcNAc). It is reported that GAL9 induces T-helper type 1 lymphocyte (Th1) death by binding to HAVCR2 (Hepatitis A virus cellular receptor 2); besides, the interaction between GAL9 and PDI (Protein disulfide-isomerase) leads to disulfide reductase activity increasing at the plasma membrane, therefore alters the plasma membrane redox state and enhances cell migration. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human GAL9 with recombinant human HAVCR2 and recombinant human PDI separately. Briefly, GAL9 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to HAVCR2-coated and PDI-coated microtiter wells and incubated for 2h at 37°C.</p>

Product Details

Wells were washed with PBST and incubated for 1h with anti-GAL9 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 GAL9 with HAVCR2 and PDI were shown in Figure 1 and Figure 2, and this effect was in a dose dependent manner. The binding activity of GAL9 with HAVCR2. Figure 2. The binding activity of GAL9 with PDI.

Target Details

Target:	Galectin 9 (LGALS9)
Alternative Name:	Galectin 9 (GAL9) (LGALS9 Products)
Background:	Alternative Names: LGALS9, Ecalectin, Lectin, Galactoside-Binding Soluble 9, Tumor antigen HOM-HD-21
Molecular Weight:	69kDa
UniProt:	000182

Application Details

Application Notes:	Isoelectric Point: 9.3
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01 % SKL, 5 % Trehalose and Proclin300.
Preservative:	Dithiothreitol (DTT), Other preservative, ProClin
Precaution of Use:	This product contains ProClin and Dithiothreitol (DTT): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

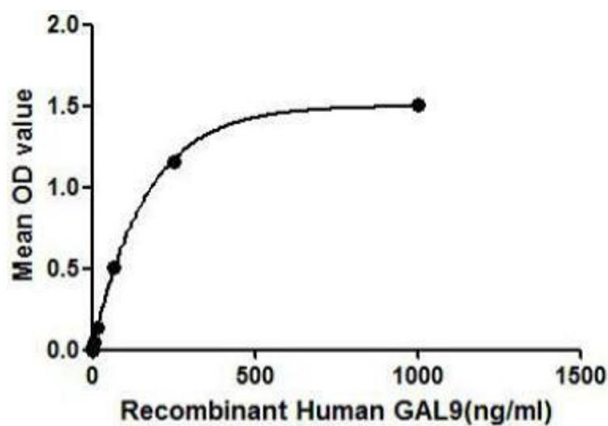


Figure 1. The binding activity of GAL9 with HAVCR2

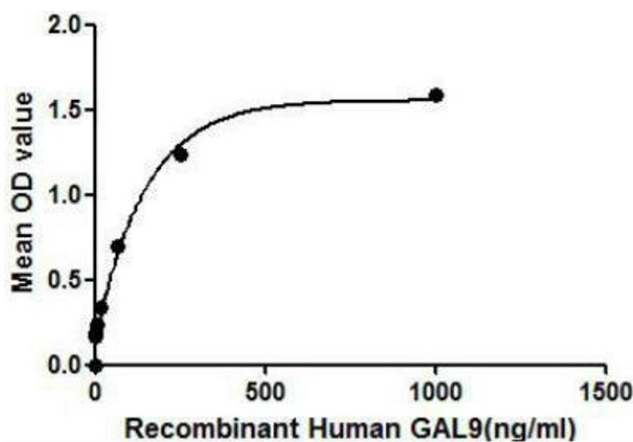
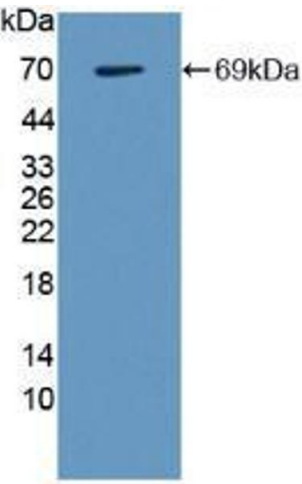


Figure 2. The binding activity of GAL9 with PDI

Image 1.

Image 2. GAL9 (Galectin-9) belongs to the galectin family, which is defined by their binding specificity for β -galactoside sugars, such as N-acetyllactosamine (Gal β 1-3GlcNAc or Gal β 1-4GlcNAc). It is reported that GAL9 induces T-helper type 1 lymphocyte (Th1) death by binding to HAVCR2 (Hepatitis A virus cellular receptor 2); besides, the interaction between GAL9 and PDI (Protein disulfide-isomerase) leads to disulfide reductase activity increasing at the plasma membrane, therefore alters the plasma membrane redox state and enhances cell migration. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human GAL9 with recombinant human HAVCR2 and recombinant human PDI separately. Briefly, GAL9 were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to HAVCR2-coated and PDI-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GAL9 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 50 μ L stop solution to the wells and read at 450nm immediately. The binding activity of GAL9 with HAVCR2 and PDI were shown



in Figure 1 and Figure 2, and this effect was in a dose dependent manner.

Image 3.