

Galectin 3 (GAL3) Active Protein | GAL3 active protein

Active Galectin 3 (GAL3)

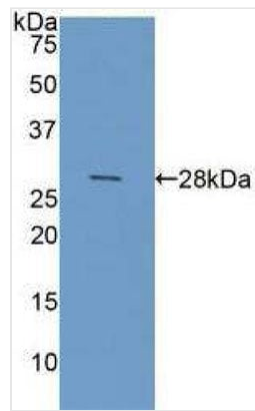
CATALOG # AAA21140	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Cell Culture, Activity Assay
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PRODUCT SYNONYMS

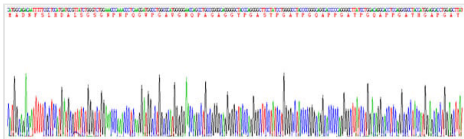
Galectin 3 (GAL3); Active Galectin 3 (GAL3); LGALS3; CBP35; GALBP; GALIG; MAC2; 35 kDa lectin; Carbohydrate-binding protein 35; Galactose-specific lectin 3; Galactoside-binding protein; Laminin-binding protein; Lectin L-29; GAL3 active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>98%
Form/Format	PBS, pH7.4, containing 5% Trehalose.
Applicable Applications for GAL3 active protein	Cell Culture, Activity Assay
Application Notes	(May be suitable for use in other assays to be determined by the end user.)
Source	Prokaryotic expression.
Residues	Met1~Ile250
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	8.6
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree 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 degree 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.



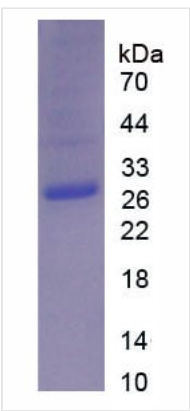
WB (Western Blot)
Sample: Recombinant GAL3, Human; Antibody: Rabbit Anti-Human GAL3 Ab



Gene Sequencing (extract)



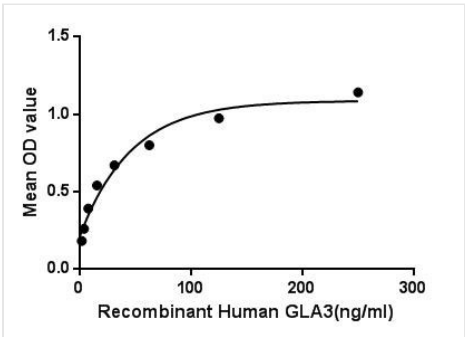
Effective concentration of GAL3
Figure 2. GAL3 also can agglutinate red blood. In this case, we chose rabbit erythrocyte (RaE) to assay its ability of agglutination. A general procedure for hemagglutination assay (or haemagglutination assay; HA) is as follows, two-fold dilute the recombinant human GAL3 with 0.01M PBS (pH7.4), add 50uL a serial dilution of GAL3 to each well of a U or V- bottom shaped 96-well microtiter plate. The final well serves as a negative control with no GAL3, replace with 50uL 0.01M PBS. Then add 50uL 1% rabbit erythrocyte to each well and mixed gently. The plate is incubated for 1-2 hours at room temperature. The results are shown in Figure 2. It was obvious that the minimal effective concentration of GAL3 is 1.2ug/mL.



SDS-PAGE
Sample: Active recombinant GAL3, Human



Hemagglutination assay
Figure 3. The hemagglutination assay of GAL3 in V- bottom shaped 96-well microtiter plate.



Activity
Figure 1. Galectin 3 (GAL3) is a member of the lectin family, of which 14 mammalian galectins have been identified. It is also a member of the beta-galactoside-binding protein family that plays an important role in cell-cell adhesion, cell-matrix interactions, macrophage activation, angiogenesis, metastasis, apoptosis. The protein also has been demonstrated to be involved in cancer, inflammation and fibrosis, heart disease, and stroke. GAL3 is expressed in the nucleus, cytoplasm, mitochondrion, cell surface, and extracellular space. Besides, Alpha-2- Heremans Schmid Glycoprotein (aHSG) has been identified as an interactor of GAL3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human GAL3 and recombinant human aHSG. Briefly, GAL3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to aHSG-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-GAL3 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 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of GAL3 and aHSG was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for GAL3 active protein	Infection immunity
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NCBI AND UNIPROT INFORMATION

NCBI GI #	115430223
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NCBI GeneID	3958
NCBI Accession #	NP_002297.2
NCBI GenBank Nucleotide #	NM_002306.4
UniProt Accession #	P17931
Molecular Weight	Predicted Molecular Mass: 27.4kDa Accurate Molecular Mass: 28kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	galectin-3 isoform 1
NCBI Official Synonym Full Names	galectin 3
NCBI Official Symbol	LGALS3
NCBI Official Synonym Symbols	L31; GAL3; MAC2; CBP35; GALBP; GALIG; LGALS2
NCBI Protein Information	galectin-3
UniProt Protein Name	Galectin-3
UniProt Gene Name	LGALS3
UniProt Synonym Gene Names	MAC2; Gal-3; CBP 35; GALBP
UniProt Entry Name	LEG3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/galectin-3-gal3/21140>