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Product Datasheet

Human Galectin 3 protein, His tag (active), Unconjugated GTX00195-PRO

Article Name	Human Galectin 3 protein, His tag (active), Unconjugated
Biozol Catalog Number	GTX00195-PRO
Supplier Catalog Number	GTX00195-pro
Alternative Catalog Number	GTX00195-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	3958
UniProt	P17931
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	Full length protein, N-terminal His-Tag, Met1~Ile250 (NP_002297.2)

Application Notes

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 100 µl were then transferred to aHSG-coated microtiter wells and incubated for 2h at 37°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°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of GAL3 and aHSG was in a dose dependent manner. 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 (pH 7.4), add 50 µl 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 50 µl 0.01M PBS. Then add 50 µl 1% rabbit erythrocyte to each well and mixed gently. The plate is incubated for 1-2 hours at room temperature. The minimal effective concentration of GAL3 is 1.2 µg/ml.