

Galactosidase Beta (GLb) Active Protein | GLb active protein

Active Galactosidase Beta (GLb)

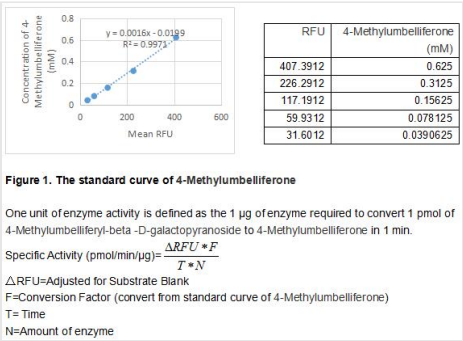
CATALOG # AAA161714	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Galactosidase Beta (GLb); Active Galactosidase Beta (GLb); Galactosidase Beta; GLb active protein (eukaryotic; 293F cell); Mouse; GL-B; b-GAL; bGAL; ELNR1; EBP; GLB1; Lactase; Elastin Receptor 1; 67kDa; Elastin Receptor 1(67kD); Acid Beta-Galactosidase4; GLb active protein

PRODUCT SPECIFICATIONS

Host	293F cell
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ile25~Ser6 47
Applicable Applications for GLb active protein	Activity Assay, Cell Culture
Species	Mouse
Expression System	Eukaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	7.3
Research Area	Enzyme & Kinase, Metabolic pathway
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

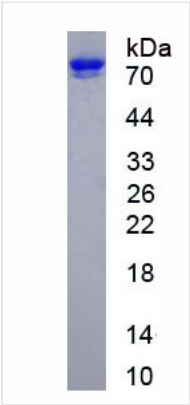


Bioactivity

GLB1 is a lysosomal beta -galactosidase that hydrolyzes the terminal beta -galactose from ganglioside and keratan sulfate. Defects in this gene are the causes of lysosomal storage diseases for GM1-gangliosidosis and Morquio B syndrome (also known as mucopolysaccharidosis IVB). In GM1 gangliosidosis, GM1 ganglioside accumulates in the neurons of the central nervous system, because of the deficiency of lysosomal beta -galactosidase activity. GM1 gangliosidosis demonstrates varying degrees of clinical severity but is invariably fatal, and children with the most common and severe form of GM1 gangliosidosis usually die within 3 years of birth. Morquio B syndrome patients are neurologically normal, but display severe skeletal dysostosis multiplex because of an accumulation of keratan sulfate. The activity assay of GLB1 was measured by its ability to cleave a peptide substrate, 4-Methylumbelliferyl-beta -D-galactopyranoside. The reaction was performed in 50 mM Sodium Citrate, pH 3.5 (Assay Buffer), initiated by addition 50 uL of 1.5 ug/ml uPA (diluted by Assay Buffer) to 50 uL of 1.2 mM Substrate. Read at excitation and emission wavelengths of 365 nm and 445 nm (top read), respectively, in kinetic mode for 5 minutes. The specific activity of recombinant mouse GLB1 is >17000 pmol/min/ug.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for GLb active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	6753190
NCBI GeneID	12091
NCBI Accession #	NP_033882.1
NCBI GenBank Nucleotide #	NM_009752.2
UniProt Accession #	P23780
Molecular Weight	73,121 Da
NCBI Official Full Name	beta-galactosidase preproprotein
NCBI Official Synonym Full Names	galactosidase, beta 1
NCBI Official Symbol	Glb1
NCBI Official Synonym Symbols	Bge; Bgl; Bgs; Bgt; Bgl-e; Bgl-s; Bgl-t; AW125515; C130097A14Rik
NCBI Protein Information	beta-galactosidase
UniProt Protein Name	Beta-galactosidase
UniProt Gene Name	Glb1
UniProt Synonym Gene Names	Bgl; Glb-1; Lactase

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/293f-cell-active-protein/galactosidase-beta-glb/161714>