PMGT1 Rabbit pAb

CatalogNo: YT6311 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC

MW
- 73kD (Calculated)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-2000
IHC 1:50-300

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from human PMGT1 AA range: 171-221
Specificity	This antibody detects endogenous levels of PMGT1 at Human/Mouse/Rat

Target Information

Gene name	POMGNT1 MGAT1.2 UNQ746/PRO1475

Protein Name PMGT1

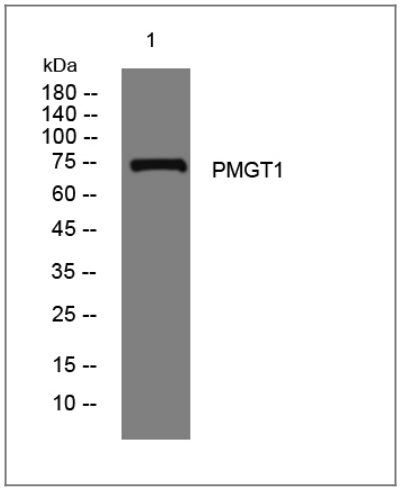
Organism	Gene ID	UniProt ID
Human	55624;	Q8WZA1;
Mouse	68273;	Q91X88;
Rat	362567;	Q5XIN7;

Cellular Localization Golgi apparatus membrane ; Single-pass type II membrane protein .

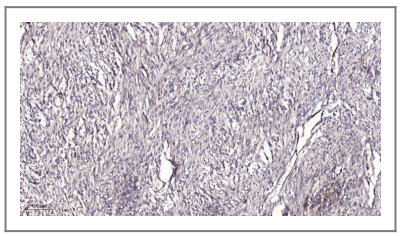
Tissue specificity Constitutively expressed. An additional weaker band is also detected in spinal cord, lymph node, and trachea. Expressed especially in astrocytes. Also expressed in immature and mature neurons.

Function Catalytic activity:UDP-N-acetyl-D-glucosamine + Man-R = N-acetyl-D-glucosamine-beta-1,2-Man-R + UDP.,cofactor:Manganese.,Disease:Defects in POMGNT1 are a cause of Walker-Warburg syndrome (WWS) [MIM:236670]; also known as hydrocephalus-agyria-retinal dysplasia or HARD syndrome. WWS is an autosomal recessive disorder characterized by cobblestone lissencephaly, hydrocephalus, agyria, retinal displasia, with or without encephalocele. It is often associated with congenital muscular dystrophy and usually lethal within the first few months of life.,Disease:Defects in POMGNT1 are the cause of muscle-eye-brain disease (MEB) [MIM:253280]. MEB is an autosomal recessive disorder characterized by congenital muscular dystrophy, ocular abnormalities, cobblestone lissencephaly and cerebellar hypoplasia. MEB patients present severe congenital myopia, congenital glaucoma, pallor of the optic disks, retinal hypoplasia, mental retardation, hydrocephalus, abnormal electroencephalograms, generalized muscle weakness and myoclonic jerks.,Domain:Amino acid residues between 299-311 are important for both protein expression and enzymatic activity. The minimal catalytic domain is located between positions 299-651. Single amino acid substitutions in the stem domain from MEB patients abolished the activity of the membrane-bound form but not the soluble form. This suggests that the stem domain of the soluble form is unnecessary for activity, but that some amino acids play a crucial role in the membrane-bound form.,Function:Participates in O-mannosyl glycosylation. May be responsible for the synthesis of the GlcNAc(beta1-2)Man(alpha1-)O-Ser/Thr moiety on alpha-dystroglycan and other O-mannosylated proteins. Is specific for alpha linked terminal mannose and does not have MGAT3, MGAT4, MGAT5, MGAT7 or MGAT8 activity.,online information:GlycoGene database,online information:Protein O-linked-mannose beta-1,2-N-acetylglucosaminyltransferase 1,pathway:Protein modification; protein glycosylation.,similarity:Belongs to the glycosyltransferase 13 family.,tissue specificity:Constitutively expressed. An additional weaker band is also detected in spinal cord, lymph node, and trachea. Expressed especially in astrocytes. Also expressed in immature and mature neurons.,

Validation Data



Western blot analysis of lysates from 293T cells, primary antibody was diluted at 1:1000, 4°over night



Immunohistochemical analysis of paraffin-embedded human Colon cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

Contact information

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Please scan the QR code to access additional product information:
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