

## Product datasheet for **MR217123L3V**

### **Mgat5 (NM\_145128) Mouse Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

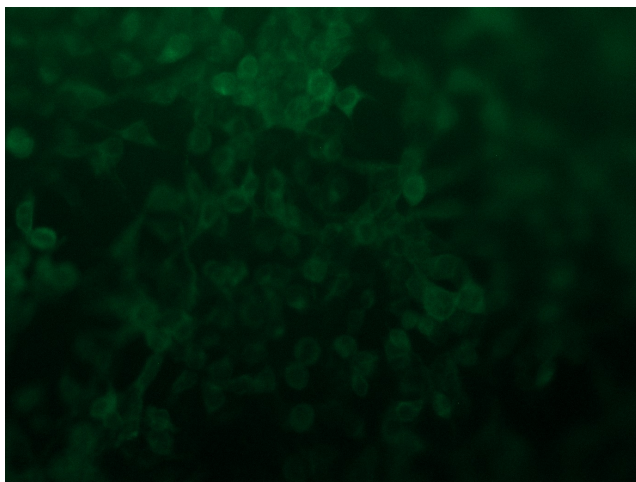
Product Type:	Lentiviral Particles
Product Name:	Mgat5 (NM_145128) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Mgat5
Synonyms:	4930471A21Rik; 5330407H02Rik; AI480971; GlcNAc-TV
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_145128
ORF Size:	2223 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR217123).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_145128.3</a> , <a href="#">NP_660110.2</a>
RefSeq Size:	3104 bp
RefSeq ORF:	2223 bp
Locus ID:	107895
UniProt ID:	<a href="#">Q8R4G6</a>
Cytogenetics:	1 E3



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**Gene Summary:**

Catalyzes the addition of N-acetylglucosamine (GlcNAc) in beta 1-6 linkage to the alpha-linked mannose of biantennary N-linked oligosaccharides (PubMed:10700233, PubMed:14561752, PubMed:22715095). Catalyzes an important step in the biosynthesis of branched, complex-type N-glycans, such as those found on EGFR, TGFR (TGF-beta receptor) and CDH2 (PubMed:12122020, PubMed:10700233, PubMed:14561752, PubMed:15459394, PubMed:22715095). Via its role in the biosynthesis of complex N-glycans, plays an important role in the activation of cellular signaling pathways, reorganization of the actin cytoskeleton, cell-cell adhesion and cell migration (PubMed:10700233, PubMed:14561752, PubMed:15459394). MGAT5-dependent EGFR N-glycosylation enhances the interaction between EGFR and LGALS3 and thereby prevents rapid EGFR endocytosis and prolongs EGFR signaling (PubMed:15459394). Required for efficient interaction between TGFB1 and its receptor (PubMed:15459394). Enhances activation of intracellular signaling pathways by several types of growth factors, including FGF2, PDGF, IGF, TGFB1 and EGF (PubMed:15459394). MGAT5-dependent CDH2 N-glycosylation inhibits CDH2-mediated homotypic cell-cell adhesion and contributes to the regulation of downstream signaling pathways (PubMed:14561752). Promotes cell migration (PubMed:14561752, PubMed:15459394). Contributes to the regulation of the inflammatory response (PubMed:11217864, PubMed:15459394). MGAT5-dependent TCR N-glycosylation enhances the interaction between TCR and LGALS3, limits agonist-induced TCR clustering, and thereby dampens TCR-mediated responses to antigens (PubMed:11217864). Required for normal leukocyte evasion and accumulation at sites of inflammation (PubMed:15459394). Inhibits attachment of monocytes to the vascular endothelium and subsequent monocyte diapedesis (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**

[MR217123L3] was used to prepare Lentiviral particles using [TR30037] packaging kit. HEK293T cells were transduced with MR217123L3V particle to overexpress human Mgat5-Myc-DDK fusion protein.