

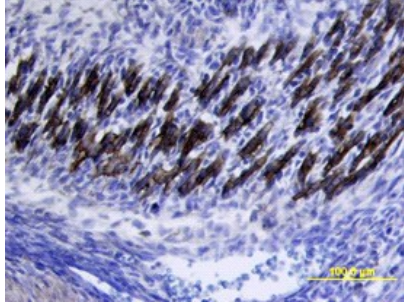
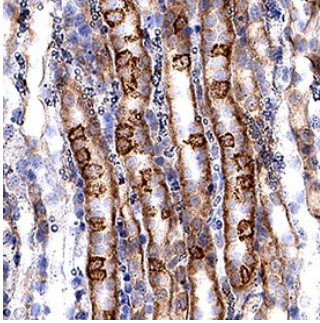
DESCRIPTION	
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse VLDL R in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse VLDL R Thr25-Ala798 Accession # AAA59384
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse VLDL R (Catalog # 2258-VL)
<b>Immunohistochemistry</b>	3-15 µg/mL	See Below

**DATA**

<p><b>Immunohistochemistry</b></p>  <p><b>VLDL R in Mouse Embryo.</b> VLDL R was detected in immersion fixed frozen sections of mouse embryo using Mouse VLDL R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2258) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counter-stained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>VLDL R in Mouse Kidney.</b> VLDL R was detected in perfusion fixed frozen sections of mouse kidney using Goat Anti-Mouse VLDL R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2258) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell membranes of convoluted tubules. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

VLDL R is a 105 kDa type I integral membrane protein that belongs to the LDL receptor family. It plays a significant role in lipid metabolism and in nervous system development and function (1, 2). Mouse VLDL R has a 770 amino acid (aa) extracellular domain (ECD) and a 54 aa cytoplasmic region. The ECD contains eight LDLR class A repeats, three EGF-like repeats, six LDLR class B repeats, and a juxtamembrane region that is rich in O-linked glycosylation (3, 4). The cytoplasmic domain contains one NPXY internalization motif. VLDL R is predominantly expressed in striated muscle, adipose tissue, brain, and endothelial cells lining capillaries and small arterioles (3-6). VLDL R participates in the tissue uptake of fatty acids from plasma by mediating the internalization of ApoE-containing lipoparticles (i.e. VLDL,  $\beta$ -VLDL, and chylomicron remnants) (5, 7). VLDL R binds and internalizes lipoprotein lipase (LPL) and mediates its transport from the basolateral to the luminal face of endothelial cells (6, 8). VLDL R knockout mice are characterized by reduced LPL activity, reduced serum triglyceride clearance, and a resistance to developing obesity (7, 9, 10). VLDL R influences breast cancer cell motility by mediating the uptake of uPAR-PAI1 complexes (6, 11). Lipoprotein accumulation via macrophage VLDL R is instrumental in promoting the formation of atherosclerotic plaques (12). In the nervous system, VLDL R and ApoE R2 interactions with Reelin are critical for neuronal migration and positioning in the developing brain (13). VLDL R also functions in adult hippocampal synapse maturation, synaptic plasticity, and memory formation (14, 15). The ECD of mouse VLDL R shares 95% aa sequence identity with human and rat VLDL R. Within shared regions, mouse VLDL R shares 55% and 53% aa sequence identity with ApoE R2 and LDL R, respectively.

**References:**

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