



20150122ML

# Anti-Mouse Angiopoietin-like protein 3 (#8G19)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>103-M307</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat) immunized with mouse recombinant protein of ANGPTL3.

## Target Background

<b>Synonyms (Target):</b>	Angptl3; hycl
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ANGPTL3 is a secreted glycoprotein that is structurally related to the angiopoietins. Mature mouse ANGPTL3 contains an N-terminal coiled coil domain and a C-terminal fibrinogen like domain. ANGPTL3 is expressed in the liver from early in development through adulthood. Full length ANGPTL3 circulates in the plasma as do the proteolytically separated N and C-terminal fragments containing the coiled coil domain and fibrinogenlike domains, respectively. ANGPTL3 is found as 70 kDa, 50 kDa, and 32 kDa species and can form weakly associated noncovalent multimers in vitro. ANGPTL3 directly inhibits lipoprotein lipase (LPL), an enzyme responsible for hydrolyzing circulating triglycerides. This activity requires a putative heparinbinding motif that is N-terminal to the coiled coil domain. Proteolytic removal of the fibrinogenlike domain from the N-terminal fragment serves to activate ANGPTL3 and increase its ability to inhibit LPL in vitro and function in vivo. ANGPTL3 promotes an increase in circulating triglyceride levels without altering VLDL or HDL secretion or uptake. ANGPTL3 knockout mice are hypolipidemic and have elevated LPL activity. ANGPTL3 expression in vivo is upregulated by LXR agonists and downregulated by insulin, leptin, and TR $\beta$  agonists. Dysregulated ANGPTL3 expression and elevated plasma triglyceride levels are characteristic of some strains of obese and diabetic mice, ANGPTL3 does not bind Tie1 or Tie2 but its fibrinogenlike domain interacts with integrin  $\alpha$ V $\beta$ 3 to induce endothelial cell adhesion, migration, and neovascularization. ANGPTL3, secreted by fetal liver cells, also promotes the expansion of hematopoietic stem cells. Mature mouse ANGPTL3 shares 22%-30% amino acid (aa) sequence identity with ANGPTL 1, 2, 4, 6, and 7. It shares 77% aa sequence identity with human ANGPTL3.

## Database References Target

<b>Protein RefSeq:</b>	NP_038941.1
<b>Uniprot ID:</b>	Q9R182
<b>mRNA RefSeq:</b>	NM_013913.3

## Product Specifications

<b>Host</b>	Rat
<b>Reactivity against</b>	Mouse
<b>Clonality</b>	Monoclonal Antibody
<b>Clone</b>	(#8G19)
<b>Isotype</b>	IgG2
<b>Purification</b>	Protein G chromatography
<b>Antigen</b>	recombinant protein of ANGPTL3
<b>Formulation</b>	lyophilized
<b>Reconstitution buffer</b>	PBS (sterile)

**Reconstitution:** Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

**Remarks:** This antibody detects mouse ANGPTL3 in Western blotting.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB

### Recommended usage:

Western Blot: 1:500 - 1:1000

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**