

## ANGPTL3/Angiotensin-like 3 Protein, Human (Biotinylated, HEK293, His-Avi)

<b>Cat. No.:</b>	HY-P78059
<b>Synonyms:</b>	ANGPTL3; ANGPT5; ANG-5; Angiotensin-5; FHBL2; ANL3; Angiotensin-5; Angiotensin-like Protein 3
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q9Y5C1 (S17-K219)
<b>Gene ID:</b>	27329
<b>Molecular Weight:</b>	30-38 kDa

### PROPERTIES

<b>Biological Activity</b>	<ol style="list-style-type: none"> <li>1. Immobilized Biotinylated Human ANGPTL3 His at 0.5 µg/mL (100 µL/Well). Dose response curve for Anti-ANGPTL3 Antibody hFc with the EC<sub>50</sub> ≤ 11.5 ng/mL determined by ELISA.</li> <li>2. Immobilized Anti-ANGPTL3 Antibody at 1 µg/mL (100 µl/well) on the plate. Dose response curve for Biotinylated Human ANGPTL3, His Tag with the EC<sub>50</sub> ≤ 5.3 ng/mL determined by ELISA.</li> </ol>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>The ANGPTL3/Angiotensin-like 3 protein functions as a hepatokine, intricately involved in the regulation of lipid and glucose metabolism. Proposed to play a role in directing energy substrates towards storage or oxidative tissues in response to food intake, ANGPTL3 stimulates plasma triglycerides (TG) by inhibiting lipoprotein lipase (LPL) activity, leading to suppressed TG clearance. This effect is achieved through the recruitment of proprotein convertases PCSK6 and FURIN to LPL, resulting in cleavage and dissociation of LPL from the cell surface. However, this regulatory function does not require ANGPTL3 proteolytic cleavage, is mediated by the N-terminal domain, and remains unaffected by GPIHBP1. Additionally, ANGPTL3 inhibits endothelial lipase, elevating plasma levels of high-density lipoprotein (HDL) cholesterol and phospholipids. By binding to adipocytes, it activates lipolysis, releasing free fatty acids and glycerol. ANGPTL3 selectively suppresses LPL in oxidative tissues, directing very low-density lipoprotein (VLDL)-TG to white adipose tissue (WAT) for storage in response to food, potentially cooperating with circulating, liver-derived ANGPTL8, and ANGPTL4 expression in</p>
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WAT. It also contributes to lower plasma levels of low-density lipoprotein (LDL)-cholesterol independently of the canonical APOE and LDLR pathway. Moreover, ANGPTL3 may stimulate hypothalamic LPL activity, while in vitro, it inhibits LPL activity without effectiveness on GPIHBP1-stabilized LPL.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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