Human Proprotein Convertase 9/PCSK9 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: BAF3888

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Proprotein Convertase 9/PCSK9 in Western blots. In Western blots, approximately 30% cross-reactivity with recombinant mouse PCSK9 is observed and less than 1% cross-reactivity with recombinant human (rh) PCSK1 and rhPCSK7 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Proprotein Convertase 9/PCSK9 Gln31-Gln692 Accession # Q8NBP7
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Human Proprotein Convertase 9/PCSK9 (Catalog # 3888-SE)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The human PCSK9 gene encodes Proprotein Convertase 9 (PC9), which is also known as Neural Apoptosis Regulated Convertase 1 (NARC1) (1). The deduced amino acid sequence of human PCSK9 consists of a signal peptide (residues 1-30), a pro peptide (residue 31-152), and a mature chain (residues 153-692) that contains a serine protease domain (residues 161-431) found in members of the furin/PC family. PCSK9 protease activity may be limited, since it has only been demonstrated through its own autocatalytic processing (2). After the autocleavage in the ER, the pro domain and mature chain exit the cell together through non-covalent interactions (3). PCSK9 is a key regulator of LDL-cholesterol levels (LDL-C) through binding of the LDL receptor, resulting in the reduction of receptor recycling to the cell surface and the acceleration of receptor degradation in lysosomes (3). Both gain of function (GOF) and loss-of-function (LOF) mutations have been found in the PCSK9 gene (3). GOF mutations are linked to familial autosomal dominant hypercholesterolemia, a disease characterized by elevated plasma levels of LDL-C. In comparison, LOF mutations lead to low levels of LDL-C and protection against coronary heart disease.

References:

1. Seidah, N.G. *et al.* (2003) Proc. Natl. Acad. Sci. USA **100**:928.
2. Naureckiene, S. *et al.* (2003) Arch. Biochem. Biophys. **420**:55.
3. Costet, P. *et al.* (2008) Trends Biochem. Sci. **33**:426.

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