Human/Mouse Proprotein Convertase 9/PCSK9 Antibody

Monoclonal Rat IgG_1 Clone # 407119

Catalog Number: MAB3888

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects the mature form of human and mouse Proprotein Convertase 9/PCSK9 in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) PC-1 or rhPC-7.
Source	Monoclonal Rat IgG_1 Clone # 407119
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Proprotein Convertase 9/PCSK9 Gln35-Gln694 Accession # Q80W65
Formulation	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
Western Blot	1 µg/mL	Recombinant Human Proprotein Convertase 9/PCSK9 (Catalog # 3888-SE) under non-reducing conditions only
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Proprotein Convertase 9/PCSK9 (Catalog # 3888-SE) or Recombinant Mouse Proprotein Convertase 9/PCSK9, see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	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
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 to 30), a pro peptide (residue 31 to 152), and a mature chain (residues 153 to 692) that contains a serine protease domain (residues 161 to 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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449