

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Proprotein Convertase 9/PCSK9 in direct ELISAs.                                                                                                                                                                                                               |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2B</sub> Clone # 499920R                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant                                                                                                                                                                                                                       |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Proprotein Convertase 9/PCSK9<br>Arg29-Gln692<br>Accession # Q8NBP7                                                                                                                                                   |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**ELISA** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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 (aa 1 to 30), a propeptide (aa 31 to 152), and a mature chain (aa 153 to 692) that contains a serine protease domain (aa 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.

#### PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.