

Product Information

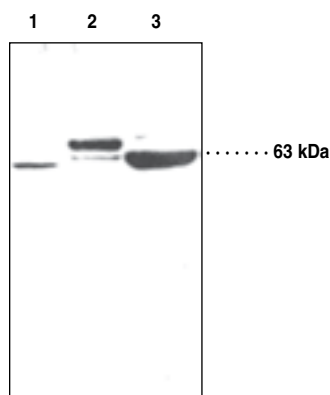


PCSK9 Polyclonal Antibody

Item No. 10007185 • Lot No. XXXXXX

- Synonyms:** NARC-1, Proprotein Convertase Subtilisin Kexin 9
- Supplied as:** This vial contains 200 µg IgG lyophilized from TBS, pH 7.4
- Host:** Rabbit
- Antigen:** Synthetic peptide from human PCSK9 amino acids 490-502; the antigen alignment with other known species is as follows:
- | | |
|-------|---------------------|
| Human | SRSGKRRGERMEA |
| Mouse | SRSG r RRG d w i EA |
| Rat | SRSG r RRG d R i EA |
- Cross-reactivity:** (+) Human, murine, and rat PCSK9; other species not tested
- Stability:** ≥1 year at -20°C
- Applications:** The recommended starting dilution for western blot is 1:200 and 1:50 (16 µg/ml) for immunocytochemistry. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Proprotein convertase subtilisin kexin 9 (PCSK9) is a member of the subtilisin serine protease family with an important role in lipoprotein metabolism.¹ Mutation in the PCSK9 gene is associated with autosomal dominant hypercholesterolemia which is characterized by an increase in low density lipoprotein (LDL) cholesterol levels.² PCSK9 overexpression in wild-type mice doubles the plasma total cholesterol, possibly through acceleration of the degradation of the LDL receptor.^{1,3} PCSK9 mRNA is detected in various tissues such as liver, kidney, lung, spleen, jejunum, ileum, colon, and muscle with the highest expression in the liver.⁴ Human PCSK9 precursor is 692 amino acid in length with an estimated molecular weight of 74 kDa. This proprotein is self-cleaved to form a mature protein at around 63 kDa in the golgi.⁵ Cayman's PCSK9 polyclonal antibody detects mainly the mature form of the protein ranging from 62-66 kDa in tissues and cells such as liver, kidney, and colon cancer cells.



Lane 1: Human liver microsome (50 µg)
Lane 2: HT-29 cell lysate (50 µg)
Lane 3: Rat kidney 100,000 x g supernatant (50 µg)

Laboratory Procedures

Immunofluorescent staining of cultured cells

1. Grow cells in 12 or 24 well plates until confluent.
2. Wash briefly with TBS, pH 7.4.
3. Fix the cells with 1% formaldehyde in TBS, pH 7.4, for 10 minutes.
4. Wash cells 3 times in TBS, containing 1% Triton-X 100 (TBST), 10 minutes each.
5. Incubate cells with 10% normal serum from the same species as the host of the secondary antibody in TBST, for 30 minutes.
6. Incubate cells with 16 µg/ml PCSK9 polyclonal antibody (recommended starting dilution; optimal dilution to be determined by end user) for 1 hour at room temperature.
7. Wash cells 3 times in TBST, 10 minutes each.
8. Incubate cells for 1 hour with an fluorochrome-conjugated secondary antibody at a concentration recommended by the provider.
9. Wash cells 3 times in TBST, 10 minutes each.
10. Examine the staining under a florescent microscope with the appropriate filter. Store the plate at 4°C in the dark for later analysis.

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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References

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