A polyclonal antibody for the advancement of cardiovascular research

Coronary heart disease is the most common cause of death in the United States and Europe. Atherosclerotic plaques restrict the flow of blood through the arteries and can lead to heart attack or stroke. High cholesterol and increased platelet production are known to be involved in the development of this disease. However, a link between changes in cholesterol homeostasis and platelet production has not been fully explored. Recent studies have implicated a transporter called ABCG4 in both cholesterol homeostasis and platelet production. Understanding this process can significantly benefit from the use of specific antibodies. This technology describes the production a polyclonal antibody that targets the ABCG4 transporter.

Polyclonal ABCG4 antibody for use in atherosclerosis and thrombosis studies

ABCG4 has been shown to play critical role in cholesterol homeostasis and the production of platelets, two fundamental events involved in cardiovascular disease. The synthetic peptide used to generate this antibody is 100% homologous between humans, mice and rats. This polyclonal antibody targets a novel site on the ABCG4 protein and the specificity of this antibody has been verified with immunofluorescence microscopy of mouse bone marrow samples and western blot analysis of overexpressed HEK293 cells.

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Applications:

- Increase platelet levels in patients with low blood platelet counts by antagonistically binding to ABCG4.
- Quantify levels of ABCG4 expression using Western Blot.
- Labeling endogenous ABCG4 protein using immunohistochemistry.
Advantages:

- Targets a novel binding site on ABCG4.
- Target sequence is 100% homologous between humans, mice and rats.

Patent information:

Patent Pending (WO2002070691)

Tech Ventures Reference: IR CU14216

Related Publications:


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