

Polyclonal Antibodies to LDL Receptor and HMG-CoA Reductase

Researchers at the University of South Florida have generated polyclonal antibodies in rabbits which are useful for the detection of proteins involved in cardiovascular and cholesterol research.

HMG-CoA reductase catalyzes the rate limiting reaction in the biosynthesis of cholesterol. This enzyme is the target of cholesterol lowering drugs. Expression of HMG-CoA reductase is affected by hormones, dietary factors and numerous pharmacological agents. In contrast with currently available commercial antibodies, our pAB was generated using a process to generate a specific immune response to the full HMG CoA reductase protein.

The Low-Density Lipoprotein (LDL) Receptor is a mosaic protein that mediates the endocytosis of cholesterol-rich LDL. Our researchers synthesized a polyclonal antibody which specifically recognizes the LDL receptor at a molecular weight of about 165kDa. This antibody will be useful to determine effects of dietary, hormonal and pharmacological agents on the expression of this key receptor in controlling cholesterol levels. It also allows scientists to determine distribution and location of this receptor.

ADVANTAGES:

- Highly specific antibodies
- High titers
- Large volume of sera available

Polyclonal Antibodies for Cardiovascular and Cholesterol Research

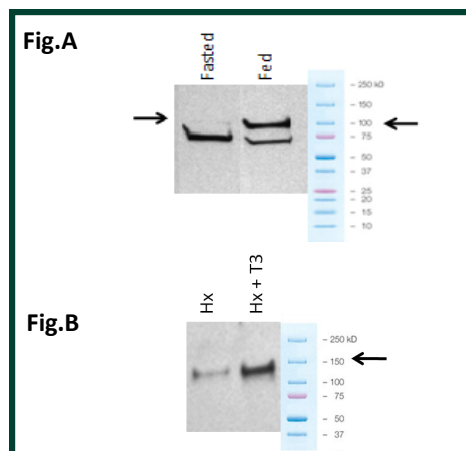


Fig A: Anti-HMG-CoA Reductase Polyclonal Antibody detection after induction of protein by fed conditions. Fig B: Anti-LDLR Polyclonal Antibody detection of protein after induction by thyroid hormone. Samples used were rat hepatocytes.