Studies have shown that an individual’s blood cholesterol levels are correlated with their risk of cardiovascular disease, one of the leading contributors to death in the United States. Lipoproteins are the molecules that help carry cholesterol through the blood stream. In this study, lipoproteins were carefully examined using a variety of methods to better detect LDL and HDL levels in samples. Using new methodology, cholesterol levels were more directly detected in this study. These results will aid in more precise determination of LDL and HDL levels, diagnosis and treatment of heart disease in the future.