

## ApoH protein

Reference: PT08011

For research use only



Expiration date

2-8°C

Store at temperature range 2°C to 8°C

LOT

Lot number

REF

Reference number

S.A. of 729 885 € capital

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## 1 – INTRODUCTION

ApoH is a plasmatic protein able to bind micro-organisms including **viruses** (1-2), **fungi** (3) and **bacteria** (4-6). The ApoH protein is also known as Apolipoprotein H or Beta-2 glycoprotein 1. Its poly-specific nature allows **multiplexing** of various micro-organisms. Using ApoH for an affinity capture method proves to be **simple, soft and fast** enough so that the micro-organisms retain their viability and infectivity. The captured micro-organisms are concentrated and **separated from potential inhibitors** and so become easier to identify/detect by the usual specific techniques, leading to a gain of sensitivity (7-10).

The ApoH protein is provided as a 1 mg/mL solution.

## 2 – REAGENTS

**REF** PT08011 – ApoH protein

The human ApoH protein is purified from human blood, supplied as a 1 mg/mL aqueous solution filtrated at 0.2 µm. Concentration determined by spectrophotometer.

## 3 – STORAGE

- ApoH protein remains stable at -20°C until the expiration date.
- ApoH protein may travel at 2-8°C without altering its function; freeze upon reception.

## 4 – PURITY

The ApoH protein is >95% pure as defined by silver-stained SDS-PAGE.

## 5 – IMPORTANT NOTES

These affinity capture mechanisms **differ** from regular antibody-antigen interactions. Capture conditions **may be modified** according to the micro-organism and the sample nature. To ensure **better success** in your trials, contact our technical support: [info@apohtech.com](mailto:info@apohtech.com)

- The ApoH protein **must not be handled** at high temperatures (> 60°C) or extreme pH (>9 or <5), prior to use. Same care should be taken after capture if retaining viable micro-organisms is an issue.
- According to the micro-organism or the sample, the choice and the quantity of capture buffer may be optimized. A panel of ApoH-Technologies Buffers is available separately.

## 6 – SAFETY AND PRECAUTIONS

- For better stability, the ApoH protein must be handled with care to **avoid any contaminations**.
- The need for a **sterile work area** will be determined by the use of captured micro-organisms (mandatory for culture).

- Before use, short spin the tube to avoid loss of protein in the lid.
- Avoid repeated freeze / thaw cycles. Protein solution should be aliquoted for maximum stability.
- The ApoH is a protein of human origin. Although this protein is purified from plasma or serum, free of infectious agents (HIV, HBV, HCV) according to European regulations at the time of their collection, it is recommended to manipulate the ApoH magnetic beads as a potentially infectious product.
- Reagents and specimens should be handled in accordance to good laboratory practices. Dispose of unused reagents, samples and wastes in accordance with local regulations.
- Do not use out-of-date reagents.

## 7 – SAMPLE COLLECTION AND HANDLING

Our current data show that the ApoH protein can capture micro-organisms in all kinds of solid (after suspension) or liquid samples. Damaged micro-organisms may lose their affinity to the ApoH protein, so:

- Use preferably fresh material or samples that have been immediately frozen and stored at -20°C or -80°C. **Repeated freeze-thaw cycles** of samples should be avoided.
- Check the viability of the bacteria in frozen samples.
- Never use **inactivated viruses**.
- Use of poor-quality starting material leads to reduced sensitivity.
- In the case of bacteria spiking, never use **“collection” bacteria** as ATCC strain (American Type Culture Collection) but **clinical strains**. Indeed, our data shows that many collection bacteria lose their attraction the ApoH protein.
- When using whole blood, choose the EDTA anti-coagulant.

## 8 – BIBLIOGRAPHY

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