# ELISA for Human Apolipoprotein E

Product Code: 3712-1H-20

## CONTENTS, development kit for 20 plates:

### Vial 1 (red top)

Monoclonal antibody E276 (1 ml)

Concentration: 0.5 mg/ml

## Vial 2 (yellow top)

Biotinylated monoclonal antibody E887 (500 µl)

Concentration: 0.5 mg/ml

## Vial 3 (white top)

Streptavidin-Horseradish peroxidase (250 µl)

#### Vial 4

Recombinant apoE3 standard (5 μg)

To ensure total recovery of stated quantity, vials have been overfilled.

#### **STORAGE:**

Shipped at ambient temperature. On arrival box 1 should be stored refrigerated at 4-8°C and box 2 should be stored frozen at -20°C.

## General

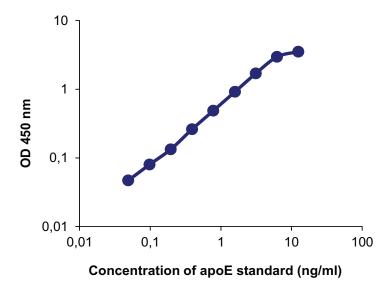
**Intended use:** For quantitative determination of native and recombinant human Apolipoprotein E in serum/plasma samples and cell culture supernatants. The mAb pair detects the three apoE isoforms apoE2, apoE3 and apoE4. Serum and plasma samples containing EDTA, citrate or heparin may be used. However, heparin containing samples will give higher apoE values due to displacement of proteoglycan bound apoE.

**Serum/plasma samples:** The mAbs will recognize apoE in human serum/plasma only in the presence of non-ionic detergents at a concentration of 0.01-0.2%. Avoid vortex in the presence of detergent. We recommend the use of Assay buffer (product code: 3652-J2) for dilution of samples, standard and detection antibody. The buffer also prevents false positive read-outs which may be caused by interference of heterophilic antibodies commonly found in human plasma and serum. The Assay buffer has been validated using serum/plasma from normal healthy human blood donors. Please note that heterophilic antibody interference in samples from human subjects with various diseases or other conditions has not been assessed. Please contact Mabtech for further information.

**Reagents:** Antibodies are supplied in sterile-filtered (0.2  $\mu$ m) PBS with sodium azide (0.02%). Streptavidin-HRP is supplied in PBS with 1% BSA and 0.15% Kathon CG.

Standard range: 0.1-10 ng/ml

**Standard calibration:** No international standard exists for calibration.



## Guidelines for Human Apolipoprotein E ELISA

- Day 1 1. Coat a high protein binding ELISA plate with mAb E276, diluted to 2 μg/ml in PBS, pH 7.4, by adding 100 μl/well. Incubate overnight at 4-8°C.
- **Day 2** 2. Wash twice with PBS (200 μl/well).
  - 3. Block plate by adding 200  $\mu$ l/well of PBS with 0.05% Tween 20 containing 0.1% BSA (incubation buffer). Incubate for 1 hour at room temperature.
  - 4. Wash five times with PBS containing 0.05% Tween.
  - 5. Prepare apoE standard by reconstituting contents of vial 4 in 1 ml PBS with 0.5 mM DTT and 0.1% BSA, do not stir. It is important to wait 20 minutes before resuspending the liquid. This gives a stock solution of 5 μg/ml which should be used immediately or stored in aliquots at -20°C for future use. The recommended standard dilutions range from 0.1-10 ng/ml.
  - 6. Add 100 μl/well of samples or standards diluted in incubation buffer or Assay buffer for serum/plasma samples and incubate for 1 to 2 hours at room temperature.
  - 7. Wash as in step 4.
  - 8. Add 100 μl/well of mAb E887-biotin at 1 μg/ml in incubation buffer or Assay buffer for serum/plasma samples. Incubate for 1 hour at room temperature.
  - 9. Wash as in step 4.
  - 10. Add 100 µl/well of Streptavidin-HRP diluted 1:1000 in incubation buffer. Incubate for 1 hour at room temperature. Please note that sodium azide used in buffers will inhibit HRP activity.
  - 11. Wash as in step 4.
  - 12. Add 100 µl/well of appropriate substrate solution.
  - 13. Measure the optical density in an ELISA reader after suitable developing time. If required stop the reaction first.

#### NOTE; for research use only.

MABTECH shall not be liable for the use or handling of the product or for consequential, special, indirect or incidental damages therefrom.



MABTECH AB Box 1233 SE-131 28 Nacka Strand Sweden

Tel: +46 8 716 27 00 Fax: +46 8 716 27 01

E-mail: mabtech@mabtech.com

www.mabtech.com

MABTECH Inc M.E.B. 220 3814 West Street Cincinnati, OH 45227 USA

Tel: +1 513 871 4500 Fax: +1 513 871 7353

E-mail: mabtech.usa@mabtech.com

MABTECH AB Büro Deutschland Germany

Tel: +49 40 4135 7935 Fax: +49 40 4135 7945

E-mail: mabtech.de@mabtech.com

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Developed and manufactured by MABTECH AB, Sweden, whose quality management system complies with the following standards:





MABTECH AUSTRALIA Pty Ltd resolvingIMAGES Unit 22, 196 Settlement Road Thomastown Victoria 3074 Australia

Tel: +61 3 9466 4007 Fax: +61 3 9466 4003

E-mail: mabtech.au@mabtech.com

MABTECH AB Bureau de liaison France BP 255, 1300 route des Crêtes 06905 Sophia Antipolis

France

Tel: +33 (0)4 92 38 80 70 Fax:+33 (0)4 92 38 80 71

E-mail: mabtech.fr@mabtech.com