

# “MagQu” Aβ1-42 Protein Control

## Solution

<b>REF</b>	CL-AB2-000T	Concentration L
	CL-AB2-020T	Concentration M



For *In Vitro* Diagnostic & Professional Use

## **Intended Use**

“MagQu” Aβ1-42 Protein Control Solution is used as a standard control for “MagQu” Amyloid β 1-42 Protein IMR Reagent (MF-AB2-0060 or MF-AB2-006B).

## **Special instrumentation requirement**

Magnetic Immunoassay Analyzer (XacPro-S)

## **Product Description**

Amyloid β (Aβ or Abeta) denotes peptides of 36–43 amino acids that are crucially involved in Alzheimer's disease as the main component of the amyloid plaques found in the brains of Alzheimer patients. The peptides result from the amyloid precursor protein (APP), which is being cut by certain enzymes to yield Aβ. One of the most common isoforms is Aβ1-42.<sup>1,2</sup>

## **Principles of Test**

“MagQu” Aβ1-42 Protein Control Solution is used as a standard control for “MagQu” Amyloid β 1-42 IMR Reagent (MF-AB2-0060 or MF-AB2-006B). The antibody conjugated on the surface of Fe<sub>3</sub>O<sub>4</sub> magnetic particles (~ 50 nm) could bind with Aβ1-42 protein and form clusters. With the increase of cluster, the signal of ac susceptibility (  $\chi_{ac}$  ) will decrease in the applied ac magnetic field. That is the principle of Immuno Magnetic Reduction (IMR). By measuring the reduction of  $\chi_{ac}$ , we can quantify the Aβ1-42 protein in the sample easily and accurately.<sup>3</sup>

## **Storage & Stability**

Storage the product at -15 to -30 °C (5.0 to -22.0 °F)

Please refer to the detail expiration date on the product label.

**CAUTION:** Do not use the product beyond the expiration date.

**CAUTION:** Avoid repeated freezing and thawing cycles.

## **Statement of Warnings**



### **BIOHAZARD**

All products or objects that come in contact with human or animal body fluids should be handled carefully, before and after cleaning, as if capable of transmitting infectious diseases. Wear facial protection, gloves, and protective clothing.

Safety Data Sheet is available at [www.magqu.com](http://www.magqu.com).

1. For *in vitro* diagnostic use only.
2. For professional use only.
3. For clinical trials units (CTU), accredited laboratories, or accredited units use only.
4. Do not use the product if there is any precipitation.

5. Aliquot the product for first use. Avoid repeated freezing and thawing cycles.
6. Do not use the product beyond the expiration date.
7. Keep out of reach of children.
8. The disposal of the waste generated should follow the local rules.
9. If there is any problem about the product, please contact the MagQu Co. Ltd.

## **Use Direction**

1. For use with the “MagQu” Amyloid β 1-42 IMR Reagent (MF-AB2-0060 or MF-AB2-006B) at room temperature (15 to 30 °C).
2. Use the product for each measurement.

## **Procedure**

### **Materials required but not supplied**

- Magnetic Immunoassay Analyzer (XacPro-S)
- “MagQu” Amyloid β 1-42 IMR Reagent (MF-AB2-0060 or MF-AB2-006B)
- Sample testing tubes
- Transfer pipettes





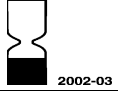


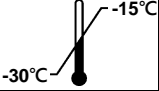







Thaw out the product on ice and then take it to room temperature (15 to 30 °C) before use. Mix the product thoroughly before use and then restore it at -15 to -30 °C as soon as possible.

1. Aliquot the product when first use. Avoid repeated freezing and thawing cycles.
2. Add 60 μL of “MagQu” Aβ1-42 Protein Control Solution into sample testing tube.
3. Add 60 μL of “MagQu” Amyloid β 1-42 IMR Reagent (MF-AB2-0060 or MF-AB2-006B) into the same sample testing tube. Vortex for about 5±2 seconds to mix thoroughly.
4. Insert the sample testing tube into the measuring slot of Magnetic Immunoassay Analyzer (XacPro-S).
5. Process the measurement according to the operation & maintenance manual of Magnetic Immunoassay Analyzer (XacPro-S).
6. The final concentration value is acceptable while it falls between ±20 % of the concentration value on COA.

## **References**

1. M.J. Chiu, S.Y. Yang, T.F. Chen, J.J. Chieh, T.Z. Huang, P.K. Yip, H.C. Yang, T.W. Cheng, Y.F. Chen, M.S. Hua, and H.E. Horng, “New assay for old markers-plasma beta amyloid of mild cognitive impairment and Alzheimer’s Disease”, *Curr. Alzheimer Res*, 9: 1142 (2012).
2. M.J. Chiu, Y.F. Chen, T.F. Chen, S.Y. Yang, F.P. Gloria Yang, T.W. Tseng, J.J. Chieh, J.C. Rare Chen, K.Y. Tzen, M.S. Hua, and H.E. Horng, “Plasma tau as a window to the brain-negative associations with brain volume and memory function in mild cognitive impairment and early Alzheimer’s disease”, *Human Brain Mapping*, 35: 3132 (2014).
3. C. C. Yang, S.Y.h Yang, J.J. Chieh, H.E. Horng, C.Y. Hong, H.C. Yang, K.H. Chen, B.Y. Shih, T.F. Chen, and M.J. Chiu, “Biofunctionalized magnetic nanoparticles for specifically detecting biomarkers of Alzheimer’s disease *in vitro*”, *ACS Chem. Neurosci*, 2: 500 (2011).

Glossary/symbol definition :

SYMBOL	DESCRIPTION
	Caution, refer to accompanying documents
	Batch code
	Catalogue number,
	Content
	Use by Expressed as: CCYY-MM-DD
	Biological risk
	Consult instructions for use.
	Temperature limitation
	Authorized representative in the EU/EC.
	In Vitro diagnostic medical device
	Manufacturer
	Country and date of manufacture
	Do not use if package damaged
	CE MARK = CONFORM WITH EEC DIRECTIVES
	Unique device identifier

 **Manufacturer**  
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