

“MagQu” Neurofilament light Control Solution



CL-NFL-000TR Concentration L

CL-NFL-050TR Concentration H



For Research Use Only

Intended Use

“MagQu” Neurofilament light Control Solution is used as a standard control for “MagQu” Neurofilament light IMR Reagent (MF-NFL-0060).

Special instrumentation requirement

Magnetic Immunoassay Analyzer (XacPro-S)

Product Description

Neurofilament light is a specific cytoskeletal protein highly expressed in largely myelinated axons. Increased levels of neurofilament light in CSF and blood are clinically useful biomarkers in many neurodegenerative diseases including Alzheimer’s disease (AD), Parkinson’s disease (PD), Huntington disease (HD).^{1,2}

Principles of Test

“MagQu” Neurofilament light Control Solution is used as a standard control for “MagQu” Neurofilament light IMR Reagent (MF-NFL-0060). The antibody conjugated on the surface of Fe₃O₄ magnetic particles (~50 nm) could bind with neurofilament light and form clusters. With the increase of cluster, the signal of ac susceptibility (χ_{ac}) will decrease in the applied ac magnetic field. That is the principle of Immuno Magnetic Reduction (IMR). By measuring the reduction of χ_{ac} , we can quantify neurofilament light in the sample easily and accurately.

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.

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

Use Direction

1. For use with the “MagQu” Neurofilament light IMR Reagent (MF-NFL-0060) 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” Neurofilament light IMR Reagent (MF-NFL-0060)
- 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 to -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” Neurofilament light Control Solution into sample testing tube.
3. Add 60 µL of “MagQu” Neurofilament light IMR Reagent (MF-NFL-0060) into the same sample testing tube. Vortex for about 15 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 $\pm 20\%$ of the concentration value.

References

7. Lewczuk, P., Ermann, N., Andreasson, U., Schultheis, C., Podhorna, J., Spitzer, P., Maler, J. M., Kornhuber, J., Blennow, K., Zetterberg, H. Plasma neurofilament light as a potential biomarker of neurodegeneration in Alzheimer's disease. *Alzheimer's research & therapy*, 10(1), 71 (2018).
8. Hansson, O., Janelidze, S., Hall, S., Magdalinou, N., Lees, A. J., Andreasson, U., Norgren, N., Linder, J., Forsgren, L., Constantinescu, R., Zetterberg, H., Blennow, K., Swedish BioFINDER study. Blood-based NfL: A biomarker for differential diagnosis of parkinsonian disorder. *Neurology*, 88(10), 930-937 (2017).

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 |
|  | For research use only |
|  | Manufacturer |
|  | Country and date of manufacture |
|  | Do not use if package damaged |



Manufacturer

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