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Product Information

Monoclonal Anti-FTL, clone FTL1.1
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200616**

Product Description

Monoclonal Anti-FTL (mouse IgG1 isotype) is derived from the hybridoma FTL1.1 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to an internal sequence of human FTL (GeneID: 2512). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-FTL recognizes human FTL. The product may be used in several immunochemical techniques including immunoblotting (~ 20 kDa), flow cytometry and immunocytochemistry.

Ferritin is composed of two subunits: a 21 kDa heavy (H) chain and a 19 kDa light (L) chain. The major function of ferritin is intracellular iron storage. In mammalian cells, functional ferritin (relative mass of aprox. 450 kDa) consists of 24 subunits of 2 species, the H and L subunits.[1] The light chain ferritin, specifically mediates storage of iron in cells. It has been suggested that its elevation may contribute to pathogenesis of CAD by modulating oxidation of lipids within the vessel wall through the generation of reactive oxygen species.[2] Furthermore, defects in this light chain ferritin gene are associated with several neurodegenerative diseases, such as hereditary ferritinopathy (HF) or neuroferritinopathy, which is an autosomal dominant, adult onset degenerative disease.[3] Interestingly, FTL has also been suggested as a tumor-associated macrophages related biomarker which is being utilized in prognosis prediction of breast cancer.[4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 5-10 µg/mL is recommended using HepG2 total cell extracts.

Immunofluorescence: a working concentration of 5-10 µg/mL is recommended using HepG2 cells.

Flow Cytometry: a working dilution of 2-5 µg /test is recommended using Jurkat cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Torti, F.M., and Torti, S.V., *Blood,* **99**, 3505-3516 (2002).
2. Kinter, M., et al., *Physiol. Genomics*, **13**, 25-30 (2003).
3. Muhoberac, B.B., and Vidal, R., *Front. Aging Neurosci.,* **5**, 32 (doi:10.3389/fnagi.2013.00032.)
4. Tang, X., *Cancer Lett.,* **332**, 3-10 (2013).

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