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Product Information

Monoclonal anti-CYBA antibody produced in mouse clone CB-64, purified from hybridoma cell culture

Catalog Number **SAB4200631**

Product Description

Monoclonal Anti-CYBA (mouse IgM isotype) is derived from the hybridoma CB-64 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the internal region of human CYBA (GeneID: 1535), conjugated to KLH. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-CYBA recognizes human, monkey, bovine, canine, rat and mouse CYBA. The product may be used in several immunochemical techniques including immunoblotting (~22kDa), flow cytometry and immunofluorescence.

The NAD(P)H oxidase system is the most important source of superoxide production in vascular cells. It is a multisubunit protein complex consisting of membrane-bound and cytosolic subunits. The small subunit, p22phox subunit, also known as CYBA ((cytochrome b-245, alpha polypeptide/ light chain) is membrane bound, which is expressed in phagocytic, endothelial and vascular smooth muscle cells.[1] Several polymorphisms of the p22phox gene (CYBA) have been reported, and two have been studied for association with coronary artery disease (CAD).[2-3] In prostate cancer cells downregulation of CYBA was reported to inhibited cell proliferation and colony formation, through AKT and ERK1/2 signaling pathways, indicating CYBA has a role in tumor angiogenesis and tumor growth.[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 Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at −20 ^{0}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 0.5-1 μg/mL is recommended using whole extracts of HeLa cells.

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

Flow Cytometry: a working dilution of 5-10 μg /test is recommended using HeLa cells.

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

References

1. Van Heerebeek, L., et al., *Clin. Pathol.* **8**, 561–568 (2002).
2. San José G., et al., *Clin Sci (Lond).*, **114**, 173-182 (2008).
3. Schreiber, R., et al. *BMC Med. Genet*.,**12**, 114 (2011)
4. Li Q., et al., *Biochim Biophys Acta.*, **1833**, 3375-85 (2013).

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