Product Information

Anti-C-Myc Magnetic Beads

Magnetic agarose, suspension

SAE0201

Product Description

In situations where protein-specific antibodies are unavailable, epitope tags enable researchers to study protein topology, characterize and identify new proteins, protein complexes, and associated proteins, even if the proteins of interest are in low abundance or are poorly immunogenic.[4-8]

The human *c-myc* proto-oncogene is the human cellular homolog of the avian *v-myc* gene found in several leukemogenic retroviruses.[1-3] Increased expression of the cellular oncogene *c-myc* has been described in a variety of human tumors, occurring by several mechanisms, including gene amplification and chromosomal translocation.[3] An epitope located within amino acid residues 410-419 (EQKLISEEDL) of human c-Myc has been widely used as a tag in many expression vectors, enabling the expression of proteins as c-Myc-tagged fusion proteins.[4]

Anti-C-Myc Magnetic beads are prepared with an affinity purified anti-c-Myc antibody, produced in rabbit (Cat. No. C3956). The antibody is conjugated to cyanogen bromide-activated Magnetic beads at a ~2 mg/mL protein-to-bead ratio.

Anti-c-Myc recognizes an epitope located on c-Myc-tagged fusion proteins. The antibody reacts specifically with N-terminal and C-terminal c-Myc-tagged fusion proteins and may be used for immunoprecipitation or immunoaffinity purification. Anti-c-Myc magnetic beads are useful in the purification of expressed c-Myc-tagged fusion proteins from bacterial lysates, mammalian lysates, or transfected cells.

Precautions and Disclaimer

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.

Reagent

The Anti c-Myc-Magnetic beads product is provided as a suspension containing 50% beads, in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Storage/Stability

For continuous use and extended storage, store at 2-8 °C. **Do not freeze**.

Product Profile

Binding capacity: 20-62 nmoles of c-Myc-tagged fusion protein per 1 mL of settled resin

Elution capacity: 5-62 nmol/mL settled resin

Procedure

General Notes

- To ensure homogeneity, mix the beads thoroughly before use by repeated inversion, gentle vortexing, or using a rotating platform.
- The following General Procedure is written for use of 20 µL of the anti-c-Myc magnetic agarose beads, and an estimated bead capacity of 40 µg of c-Myc-tagged protein.
- Our suggestion is to add enough cell lysate where 40 µg of the c-Myc-tagged protein is expected to be present.
- Each sample will differ, depending on the individual researcher's system, and determination or estimation of the degree of c-Myc tagged protein in the lysate sample.
- A method like SDS-PAGE analysis can be performed on an aliquot of the lysate, with estimated quantitation of lysate protein bands against known amounts of defined protein standards in a separate gel lane.

General Procedure for Purification of c-Myc-tagged Proteins

1. To ensure homogeneity, mix the beads thoroughly before use by repeated inversion, gentle vortexing or using a rotating platform.
2. Pre-washing: Add 20 µL of Anti c-Myc-Magnetic beads into a 1.5 mL microcentrifuge tube.
3. Place the tube into a magnetic stand to collect the beads against the side of the tube.
4. Remove and discard the supernatant. Wash with 200 mL PBS. Repeat the wash 3-5 times.
5. Apply the sample which contains the estimated amount of 40 µg c-Myc-tagged protein. Incubate for 60 minutes at 37 °C using a rotating platform.
6. Collect the flow-through of unbound protein.
7. Wash with PBS until the absorbance at 280 nm is ≤ 0.01.
8. Elution of c-Myc-tagged proteins may be done by incubation with 80 mL of 1× sample buffer for 5 minutes at 95 °C.

Additional Notes

- To obtain the best results in different techniques and preparations, we recommend determining the optimal working concentration by titration test.
- Binding capacity and elution capacity may vary, depending on the characteristics of the c-Myc-tagged fusion proteins. For optimal results, it is recommended to try different elution buffers.

References

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