

## Product Information

### Monoclonal Anti-polyHistidine

#### Clone HIS-1

produced in mouse, purified immunoglobulin

Catalog Number **SAB4200620**

#### Product Description

Monoclonal Anti-polyHistidine (mouse IgG2a isotype) is derived from the HIS-1 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with a recombinant His-tagged fusion protein. 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-polyHistidine recognizes native as well as denatured, reduced forms of synthetic polyhistidine or polyhistidine-tagged fusion proteins. The product is reactive with fusion protein expressed by prokaryotic pET, pRSET, and pTrc expression vectors. The antibody preferentially recognizes N-terminal tagged fusion proteins. The antibody is reactive in dot blot, immunoblotting, flow cytometry, immunofluorescence, and ELISA.

Recombinant DNA technology enables the attachment of genes of interest to specific sequences or genes that can provide 'affinity handles' (tags) designed to enable the selective identification of the protein of interest. These sequences of tails or tags are genetically engineered away from the protein active site, by insertion at the N or C-terminus. It has been reported the addition of a consecutive histidine amino acid residue tail creates a stable fusion product that does not appear to interfere with the bioactivity of the protein or with the biodistribution of the tagged product. A monoclonal antibody reacting specifically with polyhistidine may be useful in various immunotechniques, to identify the expression of a polyhistidine fusion protein in bacteria, bacterial lysates, or cells and tissues transfected with a polyhistidine-tagged fusion protein expressing vectors.

#### Reagent

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

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 °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 0.25–0.5 µg/mL is recommended using bacteria lysates expressing a recombinant histidine-tagged fusion protein.

**Immunofluorescence:** A working concentration of 4–8 µg/mL is recommended using HEK 293T cells overexpressing histidine-tagged fusion protein.

**Flow Cytometry:** A working dilution of 3–6 µg/test is recommended using HEK 293T cells overexpressing histidine-tagged fusion protein.

**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. Narayanan, S.R., *J. Chromatogr.*, **658**, 237 (1994).
2. Casey, J.L. et al., *J. Immunol. Meth.*, **179**, 105 (1995).
3. Uhlen, M., and Moks, T., *Meth. Enzymol.*, **185**, 129 (1990).
4. Skerra, A. et al., *Bio/Technology*, **9**, 273 (1991).

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