

Product Information

Monoclonal Anti-EEF1A1 antibody produced in mouse clone EF48, purified from hybridoma cell culture

Catalog Number **SAB4200657**

Product Description

Monoclonal Anti-EEF1A1 (mouse IgG2b isotype) is derived from the hybridoma EF48 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 EEF1A1 (GenelD: 1915), conjugated to KLH. The corresponding sequence is identical in mouse and rat. 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-EEF1A1 recognizes human, mouse, rat, monkey, canine and bovine EEF1A1. The product may be used in several immunochemical techniques including immunoblotting (~50 kDa) and immunofluorescence. Detection of the EEF1A1 band by immunoblotting is specifically inhibited by the immunizing peptide.

EEF1A1 (Eukaryotic elongation factor 1 A-1) also known as EF- α , is a GTP-binding protein. EEF1A1 is involved in proper codon-anticodon binding interactions between mRNAs and tRNAs at the tRNA acceptor site of the ribosome. EEF1A also has translation-independent roles in embryogenesis, senescence, oncogenic transformation, cell proliferation, apoptosis, cytoskeletal organization and protein degradation. EEF1A1 is one of the most abundant cytoplasmic proteins and is ubiquitously expressed except in neurons and muscle. EEF1A1 comprise a large number of pseudogenes, there is ~97% homologous between EEF1A1 and EEF1A2 isoforms, but they exhibit non-overlapping expression patterns in tissues and developmental stages. Enhanced expression of EEF1A1 has been reported in tumors of the pancreas, colon, breast, lung, and stomach.¹⁻⁴

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°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 1-2 $\mu\text{g}/\text{mL}$ is recommended using whole extracts of HEK-293T cells.

Immunofluorescence: a working concentration of 0.5-1 $\mu\text{g}/\text{mL}$ is recommended using SW-620 cells.

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

References

1. Merrick, W.C., *Microbiol. Rev.*, **56**, 291-315 (1992).
2. Soares, D.C., and Abbott, C.M., *Biol. Direct.*, **8**, 29 (2013).
3. Lamberti, A., et al., *Amino Acids*, **26**, 443-448 (2004).
4. Negrutskii, B., et al., *Expert Rev. Proteomics*, **9**, 71-83 (2012).

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