

Product Information

Anti-Aly antibody, Mouse monoclonal

Clone 11G5, purified from hybridoma cell culture

Product Number A9979

Product Description

Anti-Aly antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the 11G5 hybridoma produced by the fusion of mouse myeloma cells (SP2/O) and splenocytes from BALB/c mice immunized with recombinant human Aly/REF protein.¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma ISO-2).

Anti-Aly antibody, Mouse monoclonal recognizes human and *Xenopus* Aly. The antibody may be used in ELISA, immunoblotting (~30 kDa),¹ immunoprecipitation,¹ and immunocytochemistry.

Pre-mRNA splicing plays an important role in regulation of gene expression. During the splicing process, specific proteins are recruited to the mRNA and assembled into a complex of mRNA-protein near the exon-exon junction. This complex is termed the mRNA-protein complex (mRNP) or the exon-exon junction complex. The proteins that are found in this complex include: Y14, magoh, Aly/REF, RNPS1, Upf3, and DEK.¹⁻⁵ Aly (also known as mREF1-l) is the mammalian homologue of the yeast mRNA export factor Yra1p.⁶⁻⁷ It is a 233 amino acid RNA-binding protein that contains a RNA-binding domain and is recruited to the mRNP complexes during the splicing. Excess of recombinant expression of Aly in the cells increases both the rate and efficiency of spliced and unspliced mRNA export (*in vivo*) from the nucleus to the cytoplasm. In contrast to the Y14 protein, Aly is dissociated from the mRNAs after the export to the cytoplasm.^{1, 5-6}

Reagent

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

Antibody Concentration: ~2 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 continuous use, store at 2-8 °C for up to one month. For extended storage, freeze 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 antibody concentration of 0.5-1.0 µg/mL is recommended using total cell extract of HeLa cells (human cervix epitheloid carcinoma).

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

References

1. Kim, V.N., et al., EMBO J., **20**, 2062-2068 (2001).
2. Kim, V.N., et al., Mol. Cells, **12**, 1-10 (2001).
3. Kataoka, N., et al., J. Biol. Chem., **279**, 7009-7013 (2004).
4. Kataoka, N., et al., Mol. Cell, **6**, 673-682 (2000).
5. Kataoka, N., et al., EMBO J., **22**, 6424-6433 (2001).
6. Zhou, Z., et al., Nature, **407**, 401-405 (2000).
7. StraBer, K., et al., EMBO J., **19**, 410-420 (2000).

DS,PHC 12/15-1