

Product Information

Anti-CUGBP2 antibody, Mouse monoclonal clone HL1889 (1H2-1F12),
purified from hybridoma cell culture

Product Number **C9367**

Synonym: Monoclonal Anti-ETR3

Product Description

Anti-CUGBP2 antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hybridoma HL1889 (1H2-1F12) produced by the fusion of mouse myeloma cells (Sp2/0 cells) and splenocytes from BALB/c mice immunized with a divergent domain of human CUGBP2 corresponding to amino acids 209-415 (accession no. NP006552).¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Monoclonal Anti-CUGBP2 recognizes human, mouse, and chicken¹ CUGBP2. The antibody may be used in immunoblotting (~52 kDa),¹ immunoprecipitation, and immunocytochemistry.

CUGBP2 is an RNA-binding protein that specifically binds to CUG repeat sequences. This protein is a member of a family of RNA binding proteins called CUG-BP and ETR-3-Like Factors (CELF) or Bruno-like proteins (BRUNOL). CUGBP2 is responsible for the regulation of both nuclear and cytoplasmic RNA processing events such as alternative splicing, RNA editing, mRNA stability, and translation. The protein is transcribed in many tissues with higher expression in muscle and brain.¹⁻² In these tissues, it was implicated in the regulation of cell specific alternative splicing. In rat brain, CUGBP2 regulates a specific alternative slicing of exons 5 and 21 of the N-methyl-D-aspartate receptor 1 (NMDA R1) RNA.³ In cardiac troponin T (cTNT) pre-mRNAs, CUGBP2 activates inclusion of an alternative exon via binding to U/G-rich motifs within muscle-specific enhancer elements (MSEs).⁴ CUGBP2 also has cytosolic functions, for example, it stabilizes and inhibits translation of cyclooxygenase-2 (COX-2) mRNAs via direct interaction with A/U rich sequences in the 3' UTR.⁵

Reagent

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

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material 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 30-40 µg/mL is recommended using total cell extract of mouse heart.

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

References

1. Ladd, A.N., et al., *Dev. Dyn.*, **233**, 783-793 (2005).
2. Ladd, A.N., et al., *J. Cell Sci.*, **117**, 3519-3529 (2004).
3. Zhang, W., et al., *RNA*, **8**, 671-685 (2002).
4. Ladd, A.N., et al., *Mol. Cell. Biol.*, **21**, 1285-1296 (2001).
5. Mukhopadhyay, D., et al., *Mol. Cell.*, **11**, 113-126 (2003).

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