

RiboCluster Profiler™

Anti-CUGBP2

Code No.	Quantity	Concentration	Form
RN035PW	100 µL	1 mg/mL	Affinity Purified

BACKGROUND: The CUG-binding protein 2 (CUG-BP2), a member of the CUG-BP1 and ETR-3-like factors (CELF) family, is expressed ubiquitously, albeit at high levels in muscle cells. The physiological function of CUG-BP2 expression in the epithelial cells is still unclear. However, the in vivo targets of CUG-BP2 have been identified in cancer cells. The expression level of CUG-BP2 was increased in HT-29 colon cancer cells after irradiation with gamma rays. CUG-BP2 translocates to the cytoplasm and binds to U-rich sequences in the 3'-UTR of cyclooxygenase-2 (COX-2) mRNA, thereby increasing the stability of COX-2 mRNA while inhibiting its translation. Recent studies have reported that downregulation of CUG-BP2 expression by prostaglandin E2 protects the cells from radiation-induced mitotic catastrophe. CUG-BP2 also induces apoptosis in cancer cells by regulating the translation of McI-1, which is a member of the Bcl-2 families that perform anti-apoptotic functions, through binding to 3' UTR of McI-1 mRNA.

SOURCE: This antibody was purified from rabbit serum by affinity column chromatography. The rabbit was immunized with KLH conjugated synthetic peptide, corresponding to N-terminus of human CUGBP2.

FORMULATION: 100 µL volume of PBS containing 50% glycerol, pH 7.2. No preservative is contained.

STORAGE: This antibody solution is stable for one year from the date of purchase when stored at -20°C.

REACTIVITY: This antibody reacts with human, mouse, rat and hamster CUGBP2 on Western blotting.

APPLICATIONS:

Western blotting: 1 µg/mL for chemiluminescence detection system

Immunoprecipitation: Not recommended

Immunohistochemistry: Not tested

Immunocytochemistry: Not tested

Flow cytometry: Not tested

RNP Immunoprecipitation: Not tested

Detailed procedure is provided in the following **PROTOCOL.**

INTENDED USE:

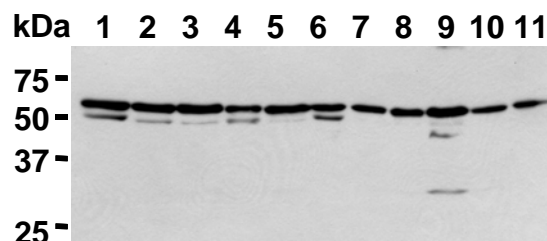
For Research Use Only. Not for use in diagnostic procedures.

REFERENCES:

- 1) Subramaniam, D., *et al.*, *Am. J. Physiol. Gastrointest. Liver Physiol.* **294**, G1025-G1032 (2008)
- 2) Natarajan, G., *et al.*, *Am. J. Physiol. Gastrointest. Liver Physiol.* **294**, G1235-G1244 (2008)
- 3) Ladd, A. N., *et al.*, *Dev. Dyn.* **233**, 783-793 (2005)
- 4) Murmu, N., *et al.*, *PNAS* **101**, 13873-13878 (2004)

SPECIES CROSS REACTIVITY:

Species	Human	Mouse	Rat	Hamster
Cells	293T, HeLa, K562, Jurkat	NIH/3T3, WR19L, MEF	NRK, PC12, Rat1	CHO
Reactivity on WB	+	+	+	+



Western blot analysis of CUGBP2 expression in K562 (1), 293T (2), HeLa (3), Jurkat (4), NIH/3T3 (5), WR19L (6), MEF (7), NRK (8), PC12 (9), Rat1 (10) and CHO (11) using RN035PW.

PROTOCOL:

SDS-PAGE & Western Blotting

- 1) Wash 1×10^7 cells 3 times with PBS and suspend them in 1 mL of Laemmli's sample buffer.
- 2) Boil the samples for 2 minutes and centrifuge. Load 10 µL of sample per lane on a 1-mm-thick SDS-polyacrylamide gel and carry out electrophoresis.
- 3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm² for 1 hour in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% MeOH). See the manufacturer's manual for precise transfer procedure.
- 4) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature, or overnight at 4°C.
- 5) Incubate the membrane with primary antibody diluted with PBS, pH 7.2 containing 1% skimmed milk as suggested in the **APPLICATIONS** for 1 hour at room

temperature. (The concentration of antibody will depend on the conditions.)

- 6) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 minutes x 3 times).
- 7) Incubate the membrane with the 1:10,000 HRP-conjugated anti-rabbit IgG (MBL; code no. 458) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature.
- 8) Wash the membrane with PBS-T (5 minutes x 3 times).
- 9) Wipe excess buffer off the membrane, and incubate membrane with an appropriate chemiluminescence reagent for 1 minute.
- 10) Remove extra reagent from the membrane by dabbing with a paper towel, and seal it in plastic wrap.
- 11) Expose the membrane onto an X-ray film in a dark room for 3 minutes.
- 12) Develop the film under usual settings. The conditions for exposure and development may vary.

(Positive controls for Western blotting; 293T, HeLa, Jurkat, K562, NIH/3T3, WR19L, MEF, NRK, Rat1, PC12, CHO)

RELATED PRODUCTS:

RIP-Assay Kit

RN1001 RIP-Assay Kit

RIP Certified Antibody

RN001P Anti-EIF4E (polyclonal)
RN002P Anti-EIF4G1 (polyclonal)
RN003P Anti-EIF4G2 (polyclonal)
RN004P Anti-ELAVL1/HuR (polyclonal)
RN005P Anti-ELAVL2/HuB (polyclonal)
RN006P Anti-ELAVL3/HuC (polyclonal)
RN007P Anti-IGF2BP1/IMP1 (polyclonal)
RN008P Anti-IGF2BP2/IMP2 (polyclonal)
RN009P Anti-IGF2BP3/IMP3 (polyclonal)
RN010P Anti-MSI1/Musashi1 (polyclonal)

Other RIP-Certified Antibodies are also available.

Please visit our website at

<https://ruo.mbl.co.jp/product/epigenetics/rip-assay.html>

RIP-Assay Starter Kit

Each RIP-Assay Starter Kit contains 40 µg of RIP-Certified Antibody and RIP-Assay Kit.

RN001PK RIP-Assay Starter Kit EIF4E (polyclonal)
RN002PK RIP-Assay Starter Kit EIF4G1 (polyclonal)
RN003PK RIP-Assay Starter Kit EIF4G2 (polyclonal)
RN004PK RIP-Assay Starter Kit ELAVL1/HuR (polyclonal)
RN005PK RIP-Assay Starter Kit ELAVL2/HuB (polyclonal)
RN006PK RIP-Assay Starter Kit ELAVL3/HuC (polyclonal)
RN007PK RIP-Assay Starter Kit IGF2BP1/IMP1 (polyclonal)
RN008PK RIP-Assay Starter Kit IGF2BP2/IMP2 (polyclonal)
RN009PK RIP-Assay Starter Kit IGF2BP3/IMP3 (polyclonal)
RN010PK RIP-Assay Starter Kit MSI1/Musashi1 (polyclonal)

Other RIP-Assay Starter Kits are also available.

Please visit our website at

<https://ruo.mbl.co.jp/product/epigenetics/rip-assay.html>

RBP Antibody

RBP Antibody works on WB and /or IP, but not certified for working on RIP-Assay.

RN023PW Anti-PABPN1 (polyclonal)
RN028PW Anti-EIF2C1/AGO1 (polyclonal)
RN029PW Anti-EIF2C2/AGO2 (polyclonal)
RN030PW Anti-DICER1 (polyclonal)
RN031PW Anti-ZFP36 (polyclonal)
RN034PW Anti-CUGBP1 (polyclonal)
RN035PW Anti-CUGBP2 (polyclonal)

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