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

MBL
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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 McL-1, which is a member of the Bcl-2 families that perform anti-apoptotic functions, through binding to 3′ UTR of McL-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 -20ºC.

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

APPLICATIONS:

Western blotting; 1 µg/mL
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:

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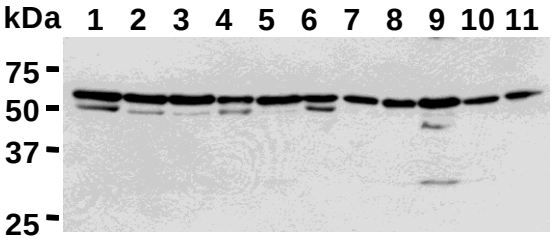
REFERENCES:

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 blotting 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.

The descriptions of the following protocols are examples. Each user should determine the appropriate condition.

PROTOCOL:

SDS-PAGE & Western blotting

1) Wash 1 x 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/cm^2 for 1 hour in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% Methanol). 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 4ºC.
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).
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).
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)

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