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Not for use in diagnostic procedures.

MBL
A JSR Life Sciences Company

RiboCluster Profiler™

RBP Antibody

Anti-YTHDF2 pAb

CODE No. RN123PW

CLONALITY Polyclonal
ISOTYPE Rabbit Ig, affinity purified
QUANTITY 100 µL, 1 mg/mL

SOURCE Purified Ig from rabbit serum
FORMULATION 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.

APPLICATIONS-CONFIRMED

Western blotting	1:1,000
Immunoprecipitation	5 µL/500 µL of cell extract from 5 x 10^6 cells/sample

APPLICATION-REPORTED

Immunocytochemistry	Reference 1)

SPECIES CROSS REACTIVITY on WB

Species	Human	Mouse	Rat	Hamster
Cells	HeLa, HEK293T, Jurkat, K562	NIH/3T3, WR19L	Rat1	CHO
Reactivity	+	+	+ (weak)	+

Entrez Gene ID 51441 (Human), 213541 (Mouse), 313053 (Rat), 100763174 (Hamster)

REFERENCES

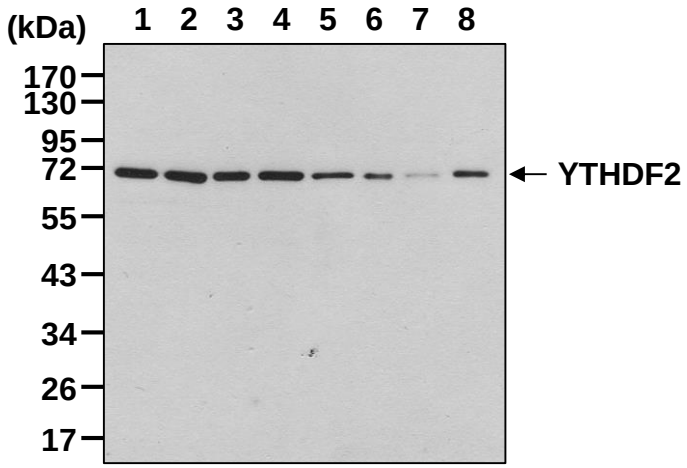
1) Li, Z., *et al.*, *Cell Res.* **28**, 904-917 (2018) [WB, IC]
2) Li, M., *et al.*, *Genome Biol.* **19**, 69 (2018) [WB]

For more information, please visit our website **https://ruo.mbl.co.jp/**.

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, then sonicate briefly (up to 20 sec.).
2) Boil the samples for 3 min. and centrifuge. Load 10 μL of the sample per lane in a 1-mm-thick SDS-polyacrylamide gel (10% acrylamide) for electrophoresis.
3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm^2 for 1 hr. 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 5% skimmed milk (in PBS, pH 7.2) overnight at 4°C.
5) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 min. x 3).
6) Incubate the membrane with primary antibody diluted with 1% skimmed milk (in PBS, pH 7.2) as suggested in the **APPLICATIONS** for 1 hr. at room temperature. (The concentration of antibody will depend on the conditions.)
7) Wash the membrane with PBS-T (10 min. x 3).
8) Incubate the membrane with 1:5,000 of Anti-IgG (Rabbit) pAb-HRP (MBL; code no. 458) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hr. at room temperature.
9) Wash the membrane with PBS-T (10 min. x 3).
10) Wipe excess buffer on the membrane, then incubate it with appropriate chemiluminescence reagent for 1 min. Remove extra reagent from the membrane by dabbing with paper towel, and seal it in plastic wrap.
11) Expose to an X-ray film in a dark room for 3 min. Develop the film as usual settings. The condition for exposure and development may vary.

(Positive controls for Western blotting; HeLa, HEK293T, Jurkat, NIH/3T3, WR19L and CHO)



Western blotting analysis of YTHDF2

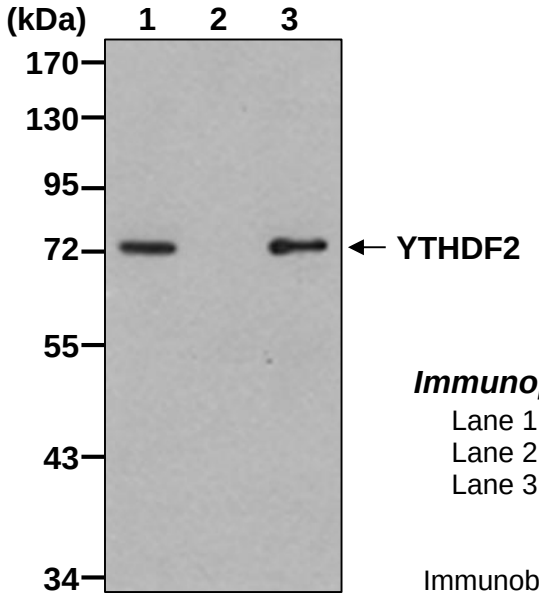
Lane 1: HeLa
Lane 2: HEK293T
Lane 3: Jurkat
Lane 4: K562
Lane 5: NIH/3T3
Lane 6: WR19L
Lane 7: Rat1
Lane 8: CHO

Immunoblotted with Anti-YTHDF2 pAb (MBL; code no. RN123PW)

Immunoprecipitation

1) Wash 1 x 10^7 cells 4 times with PBS and resuspend them with 1 mL of ice-cold Lysis Buffer (+) (MBL; code no. RN1001) containing appropriate protease inhibitors and DTT. Vortex thoroughly, then incubate on ice for 10 min.
2) Centrifuge the tube at 12,000 x g for 5 min. at 4°C and transfer the supernatant to another tube.
3) Add 20 µL of 50% protein G agarose beads slurry resuspended in ice-cold Wash Buffer (+) (MBL; code no. RN1001) containing DTT at the appropriate concentration into the supernatant. Incubate it at 4°C with rotating for 1 hr.
4) Centrifuge the tube at 2,000 x g for 1 min. at 4°C and transfer the supernatant to another tube (precleared sample).
5) Mix 20 µL of 50% protein G agarose beads slurry resuspended in 1 mL of ice-cold Wash Buffer (+) with Normal Rabbit IgG (RIP-Assay Kit) or Anti-YTHDF2 pAb (MBL; code no. RN123PW) as suggested in the **APPLICATIONS**. Incubate at 4°C with rotating for 1 hr.
6) Wash the beads 1 time with ice-cold Lysis Buffer (+). Carefully discard the supernatant.
7) Add 500 µL of the precleared sample (prepared in step 4)) to the tube containing antibody conjugated beads, then incubate with gentle agitation for 2 hr. at 4°C.
8) Wash the bead pellet 4 times with 1 mL of ice-cold Wash Buffer (+).
9) Resuspend the bead pellet in 20 µL of Laemmli's sample buffer, boil for 3 min. and centrifuge.
10) Load 10 µL of the sample per lane in a 1-mm-thick SDS-polyacrylamide gel (10% acrylamide) for electrophoresis.
11) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm^2 for 1 hr. 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.
12) To reduce nonspecific binding, soak the membrane in 5% skimmed milk (in PBS, pH 7.2) overnight at 4°C.
13) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 min. x 3).
14) Incubate the membrane with primary antibody diluted with 1% skimmed milk (in PBS, pH 7.2) as suggested in the **APPLICATIONS** for 1 hr. at room temperature. (The concentration of antibody will depend on the conditions.)
15) Wash the membrane with PBS-T (10 min. x 3).
16) Incubate the membrane with 1:1,000 of Rabbit TrueBlot® anti-Rabbit IgG-HRP (eBioscience; code no. 18-8816-33) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hr. at room temperature.
17) Wash the membrane with PBS-T (10 min. x 3).
18) Wipe excess buffer on the membrane, then incubate it with appropriate chemiluminescence reagent for 1 min.
19) Remove extra reagent from the membrane by dabbing with paper towel, and seal it in plastic wrap.
20) Expose to an X-ray film in a dark room for 3 min. Develop the film as usual. The condition for exposure and development may vary.

(Positive control for Immunoprecipitation; Jurkat)



Immunoprecipitation of YTHDF2 from Jurkat cells
Lane 1: Input (total cell lysate)
Lane 2: Normal Rabbit IgG
Lane 3: Anti-YTHDF2 pAb (MBL; code no. RN123PW)

Immunoblotted with MBL; code no. RN123PW