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

Anti-PER2 (Human) pAb

CODE No. PM096

CLONALITY Polyclonal
ISOTYPE Guinea pig Ig, affinity purified
QUANTITY 50 µL

SOURCE Purified Ig from guinea pig serum
FORMURATION TBS containing 50% Glycerol (pH 7.5). 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	1:500 for chemiluminescence detection system
Immunoprecipitation	2 µL/sample

SPECIES CROSS REACTIVITY on WB

Species	Human	Mouse	Rat	Hamster
Samples	U2OS cells treated with dexamethasone for 30 hr, transfectant	Liver nuclear extract, NIH/3T3	Not tested	Not tested
Reactivity	+	-		

Entrez Gene ID 8864 (Human)

REFERENCES

1) Lee, Y., *et al., J. Biol. Chem.* **286**, 7033-7042 (2011)
2) Siepka, S. M., *et al., Cold Spring Harb. Symp. Quant. Biol.* **72**, 251-259 (2007)
3) Ko, C. H. and Takahashi, J. S., *Hum. Mol. Genet.* **15**, R271-R277 (2006)
4) Zheng, B., *et al., Cell* **105**, 683-94 (2001)
5) Bae, K., *et al., Neuron* **30**, 525-536 (2001)
6) Camacho, F., *et al., FEBS Lett.* **489**, 159-165 (2001)

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MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.
URL http://ruo.mbl.co.jp/
e-mail support@mbl.co.jp, TEL 052-238-1904

RELATED PRODUCTS

Antibodies

PM096	Anti-PER2 (Human) pAb
PM091	Anti-Per1 (Mouse) pAb
PM083	Anti-Per2 (Mouse) pAb
PM082	Anti-Cry2 (Mouse) pAb
PM081	Anti-Cry1 (Mouse) pAb
PM093	Anti-NR1D2 (Rev-erb²) pAb
PM092	Anti-NR1D1 (Rev-erb±) pAb
D333-3	Anti-CLOCK (Mouse) mAb (CLSP3)
D334-3	Anti-CLOCK (Mouse) mAb (CLNT1)
D349-3	Anti-CLOCK (Mouse) mAb (CLSP4)
D335-3	Anti-BMAL1 (Mouse) mAb (B1BH2)
M225-3	Anti-NFIL3 (E4BP4) chimeric mAb (42)
PM097	Anti-NFIL3 (E4BP4) pAb
PM079	Anti-DBP (Mouse) pAb
CY-P1016	Anti-SIRT1 pAb
RN032P	Anti-CIRBP pAb
RN013MW	Anti-Nono (P54NRB) mAb (C5)
RN014MW	Anti-SFPQ (PSF) mAb (C23)
RN015MW	Anti-PSPC1 (PSP1) mAb (1L4)
RN092PW	Anti-NONO (P54NRB) pAb
RN106PW	Anti-SFPQ (PSF) pAb
PM075	Anti-GNAT2 (Zebrafish) pAb
PM067	Normal Guinea Pig IgG

Kits

CY-1151	CycLex® SIRT1/Sir2 Deacetylase Fluorometric Assay Kit
CY-1152	CycLex® SIRT2 Deacetylase Fluorometric Assay Kit
CY-1173	CycLex® CaM-kinase II Assay Kit
CY-8102	CircuLex Mouse CIRP ELISA Kit
CY-8103	CircuLex Human CIRP ELISA Kit

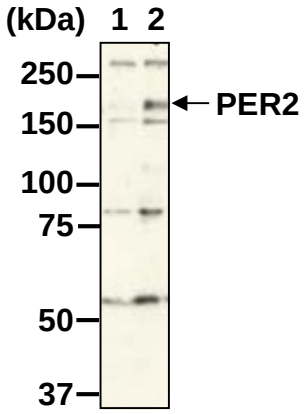
Recombinant proteins (Human, Active)

CY-E1151	NAD^+-Dependent Deacetylase SIRT1
CY-E1152	NAD^+-Dependent Deacetylase SIRT2
CY-E1173	CaM-kinase II Positive Control

SDS-PAGE & Western blotting

1) Wash 1 x 10^7 cells 3 times with PBS and suspends them in 500 μL of Laemmli's sample buffer. Sonicate briefly (up to 30 sec.).
2) Boil the sample for 5 min. and centrifuge. Load 10 μL of the sample per lane in a 1-mm-thick SDS-polyacrylamide gel (7.5% acrylamide) for electrophoresis.
3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 190 mA for 90 min. 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) overnight at 4°C.
5) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 min. x 3 times).
6) Incubate the membrane with primary antibody diluted with 1% skimmed milk (in PBS, pH 7.2) as suggested in the **APPLICATION** for 1 hr. at room temperature. (The concentration of antibody will depend on the conditions.)
7) Wash the membrane with PBS-T (5 min. x 3 times).
8) Incubate the membrane with 1:20,000 of Rabbit anti-Guinea Pig IgG (H+L) Secondary Antibody, HRP conjugate (Life Technologies; code no. 61-4620) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hr. at room temperature.
9) Wash the membrane with PBS-T (5 min. x 3 times).
10) Wipe excess buffer on the membrane, and 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. The condition for exposure and development may vary.

(Positive control for Western blotting; U2OS cells treated with dexamethasone for 30 hr.)



Western blot analysis of human PER2 from U2OS cells treated with dexamethasone (Dex)

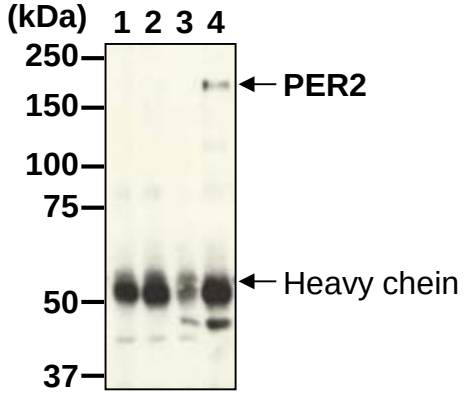
Lane 1: Dex-treated for 18 h
Lane 2: Dex-treated for 30 h

Immunoblotted with Anti-PER2 (Human) pAb (PM096)

Immunoprecipitation

1) Wash 1 x 10^7 cells 3 times with PBS and add 1 mL of IP buffer [20 mM HEPES-NaOH (pH7.8), 137 mM NaCl, 1 mM EDTA, 5% glycerol, 1% Triton X-100, 50 mM NaF, 1 mM Na_3VO_4] containing appropriate protease inhibitors. Sonicate briefly (up to 10 sec.), then incubate it on ice for 30 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 200 µL of 50% protein G agarose beads slurry resuspended in PBS. Incubate it at 4°C with rotating for 30 min.
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) Add primary antibody as suggested in the **APPLICATIONS** to the 330 µL of precleared sample. Incubate with gentle agitation for 1 hr. at 4°C.
6) Add 30 µL of 50% protein A agarose beads slurry into the tube. Incubate with gentle agitation for 1 hr. at 4°C.
7) Wash the beads 4 times with 1 mL of IP buffer.
8) Resuspend the beads in 30 µL of Laemmli's sample buffer, boil for 5 min. and centrifuge.
9) Load 10 µL of the sample per lane in a 1-mm-thick SDS-polyacrylamide gel (7.5% acrylamide) for electrophoresis.
10) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 190 mA for 90 min. 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.
11) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH 7.2) overnight at 4°C.
12) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 min. x 3 times).
13) Incubate the membrane with primary antibody diluted with 1% skimmed milk (in PBS, pH 7.2) as suggested in the **APPLICATION** for 1 hr. at room temperature. (The concentration of antibody will depend on the conditions.)
14) Wash the membrane with PBS-T (5 min. x 3 times).
15) Incubate the membrane with 1:20,000 of Rabbit anti-Guinea Pig IgG (H+L) Secondary Antibody, HRP conjugate (Life Technologies; code no. 61-4620) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hr. at room temperature.
16) Wash the membrane with PBS-T (5 min. x 3 times).
17) Wipe excess buffer on the membrane, and 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.
18) 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; U2OS cells treated with dexamethasone for 30 hr.)



Immunoprecipitation of human PER2 from U2OS cells treated with dexamethasone (Dex)

<Sample>
Lane 1 and 3: Dex-treated for 18 h
Lane 2 and 4: Dex-treated for 30 h

<Antibody>
Lane 1 and 2: Normal Guinea Pig IgG (PM067)
Lane 3 and 4: Anti-PER2 (Human) pAb (PM096)

Immunoblotted with PM096