Product Datasheet

BMAL1 Antibody
NB100-2288SS

Unit Size: 0.025 ml

Store at 4C. Do not freeze.

Publications: 5

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NB100-2288SS

BMAL1 Antibody

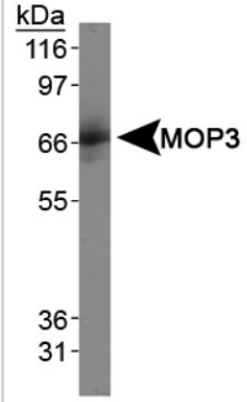
Product Information	
Unit Size	0.025 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Purity	Immunogen affinity purified
Buffer	PBS
Target Molecular Weight	70 kDa

Product Description	
Host	Rabbit
Gene ID	406
Gene Symbol	ARNTL
Species	Human, Mouse, Rat, Primate
Species Reactivity	Human, mouse, rat and primate.
Immunogen	Bacterially expressed human BMAL1 (C-terminus). [UniProt# O00327].

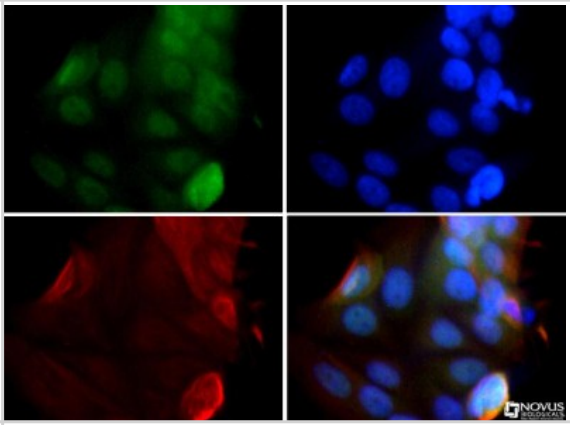
Product Application Details	
Applications	Western Blot, Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Chromatin Immunoprecipitation, Immunocytochemistry/Immunofluorescence 1:100, Immunohistochemistry 1:250, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin 1:250, Western Blot 1:100-1:200
Application Notes	This BMAL1 antibody is useful in Immunocytochemistry/Immunofluorescence, Western blot, and IHC-paraffin embedded sections. Use in IHC-frozen sections was reported in the scientific literature (PMID: 23736292). In ICC/IF, primarily nuclear staining was observed with weak cytoplasmic staining in MCF7 cells. In Western Blot, a band was observed ~70 kDa. In IHC-P, staining was observed in the nuclei of mouse brain tissue. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended.

Images

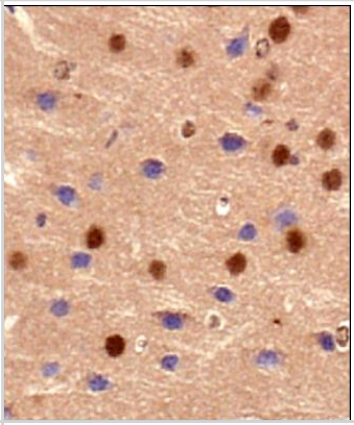
Western Blot: BMAL1 Antibody [NB100-2288] - Analysis of MOP3 on 3T3/L1 cell lysates.



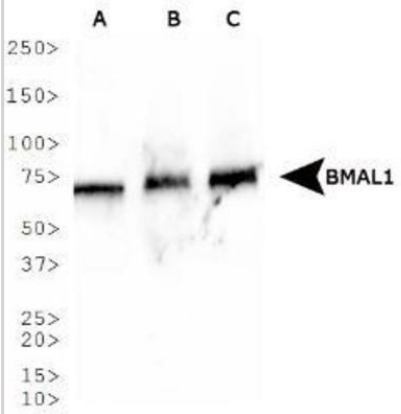
Immunocytochemistry/Immunofluorescence: BMAL1 Antibody [NB100-2288] - BMAL1 antibody was tested in MCF-7 cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Immunohistochemistry: BMAL1 Antibody [NB100-2288] - Analysis of BMAL1 in mouse brain using DAB with hematoxylin counterstain.



Western Blot: BMAL1 Antibody [NB100-2288] - Analysis of BMAL1 in A) MCF7, B) NIH/3T3, C) PC12.



Publications

Leliavski A, Shostak A, Husse J, Oster H. Impaired glucocorticoid production and response to stress in Arntl-deficient male mice. Endocrinology. 2014 Jan 01 [PMID: 24189141] (IHC-P)

Obi-Ioka Y, Ushijima K, Kusama M et al. Involvement of Wee1 in the circadian rhythm dependent intestinal damage induced by docetaxel. J Pharmacol Exp Ther 2013 Jul 26 [PMID: 23892568] (ChIP, Mouse)

Chu A, Zhu L, Blum ID et al. Global but not gonadotrope-specific disruption of bmal1 abolishes the luteinizing hormone surge without affecting ovulation. Endocrinology 2013 Aug [PMID: 23736292] (IHC-Fr, ICC/IF, Mouse)

Hayashida S, Kuramoto Y, Koyanagi S et al. Proxisome proliferator-activated receptor-alpha mediates high-fat, diet-enhanced daily oscillation of plasminogen activator inhibitor-1 activity in mice. Chronobiol Int 2010 Oct [PMID: 20969520] (WB, ChIP, Mouse)

Lauzier A, Charbonneau M, Harper K et al. Formation of invadopodia-like structures by synovial cells promotes cartilage breakdown in collagen-induced arthritis: Involvement of the protein tyrosine kinase Src. Arthritis Rheum;63 (6):1591-1602. 2011 Jun. [PMID: 21337539] (ICC/IF, Rat)

Procedures

Western Blot protocol for BMAL1 Antibody (NB100-2288)

1. Perform SDS-PAGE on samples to be analyzed, loading 40 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

Immunocytochemistry/Immunofluorescence Protocol for BMAL1 Antibody (NB100-2288)

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our guarantee, please visit www.novusbio.com/guarantee.