

Product Datasheet

Ppara Antibody (orb345413)

| | |
|-----------------------------|--|
| Catalog Number | orb345413 |
| Category | Antibodies |
| Description | PPAR alpha antibody |
| Target | Ppara |
| Clonality | Polyclonal |
| Species/Host | Rabbit |
| Isotype | IgG |
| Conjugation | Unconjugated |
| Reactivity | Human, Mouse |
| Form/Appearance | Liquid (sterile filtered) |
| Concentration | 1.0 mg/mL |
| Buffer/Preservatives | Preservative: 0.01% (w/v) Sodium Azide. Stabilizer: None; Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Purity | Anti-PPAR alpha Antibody is directed against mouse PPAR alpha protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from mouse, rat, bovine, dog, golden hamster and boar sources based on 100% homology for the immunogen sequence. Cross reactivity with PPAR alpha protein from human, chimpanzee and rhesus monkey may also occur as this sequence shows 88% homology (16/18 identities) with the protein from these sources. Cross reactivity with PPAR alpha homologues from other sources has not been determined. No reactivity is expected against other subtypes of PPAR. |

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

| | |
|----------------------------|--|
| Immunogen | PPAR alpha Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a N-Terminal region near amino acids 1-25 of mouse PPAR alpha. |
| UniProt ID | P23204 |
| Tested applications | ELISA, IF, IHC, WB |
| Dilution range | ELISA: 1:75,000 - 1:125,000, IHC: 1:100-1:300, IF: 1-5µg/mL, WB: 1:500 - 1:2,000 |
| Application notes | Anti-PPAR alpha Antibody has been tested in ELISA, Western Blot, Immunohistochemistry, and Immunofluorescence. Expect a single band approximately 52 kDa in size corresponding to PPAR alpha by western blot in the appropriate tissue or cell lysate. A 1:200 dilution is suggested for Immunohistochemistry. Specific conditions for reactivity should be optimized by the end user. |
| Antibody Type | Primary Antibody |
| Storage | Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| Dry Ice Shipping | Please note: This product requires shipment on dry ice. A dry ice surcharge will apply. |
| Note | For research use only |
| NCBI | 31543500 |
| Expiration Date | 12 months from date of receipt. |

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

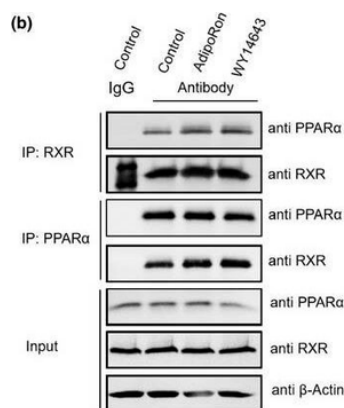
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

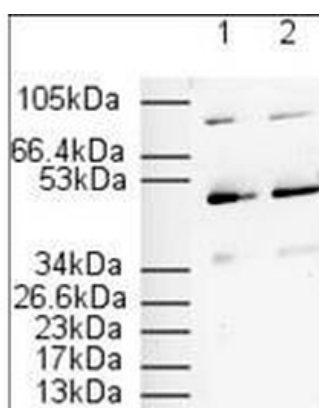
68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)



Adiponectin regulates the expression of ADAM10 and Notch1 through PPAR α and JNK pathway respectively. (a) Representative immunoblots and quantification of hippocampal protein levels after chronic ICV injection of AdipoRon, WY14643 (PPAR α agonist) and GW6471 (PPAR α antagonist) in 12-month-old mice, including Notch1 and ADAM10. Control, n = 6; AdipoRon, n = 6; WY14643, n = 7; AdipoRon + GW6471, n = 7. *p 0.05, **p 0.01, ***p 0.001 compared with Control; #p 0.05, ###p 0.001 compared with AdipoRon treatment. (b) Co-immunoprecipitation results showing chronic ICV injection of AdipoRon or WY14643 enhances the interaction between PPAR α and RXR. Control, n = 6; AdipoRon, n = 6; WY14643, n = 7. ***p 0.001 compared with Control. (c) qPCR results showing chronic ICV injection of AdipoRon or WY14643 Induces the recruitment of RXR to the ADAM10 Promoter. Control, n = 6; AdipoRon, n = 7; WY14643, n = 7. ***p 0.001 compared with Control. (d) Chronic ICV injection of AdipoRon upregulates the activity of JNK. Control, n = 6; AdipoRon, n = 6. ***p 0.001. (e) Representative immunoblots and quantification of hippocampal protein levels after chronic ICV injection of AdipoRon, Vinblastine (JNK agonist) and SP600125 (JNK antagonist) in 12-month-old mice, including Notch1 and ADAM10. Control, n = 6; AdipoRon, n = 7; Vinblastine, n = 7; AdipoRon + SP600125, n = 7. **p 0.01, ***p 0.001 compared with Control; ###p 0.001 compared with AdipoRon treatment. Data are presented as means \pm SEM.



Affinity Purified Anti-PPAR alpha (N -terminal specific) (Rabbit) is shown to detect a 52 kDa band corresponding to PPAR alpha present in a 3T3 whole cell lysate. Approximately 20 μ g of lysate was loaded per lane for SDS-PAGE. Detection occurred after using a 1:500 (lane 1) or 1:1000 (lane 2) dilution of antibody followed by 1:2000 dilution of HRP Goat-a-Rabbit IgG for visualization.

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

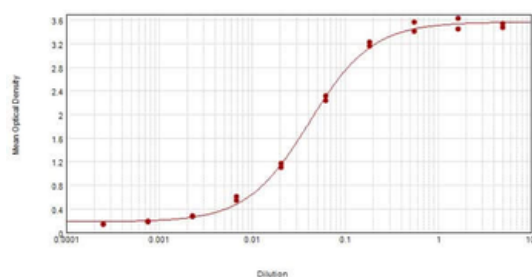
Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

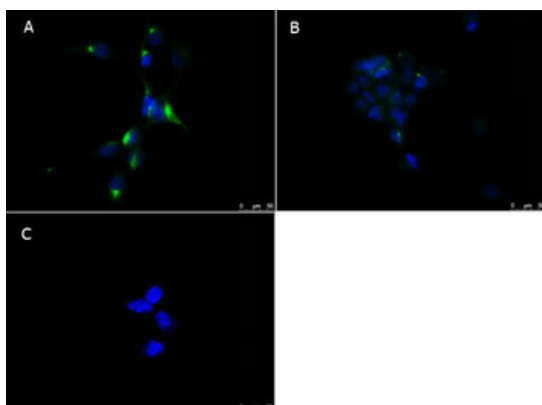
68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

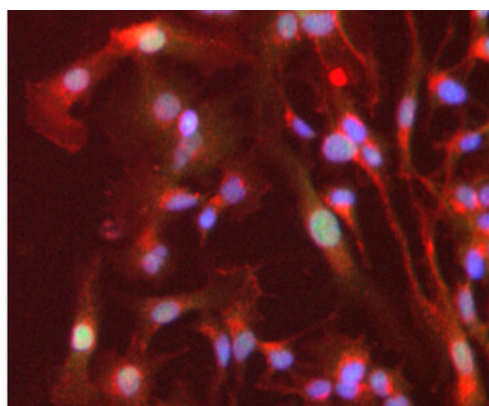
Anti-PPAR alpha (N-terminal specific) Sensitivity



ELISA results of purified Rabbit anti-PPAR Alpha (N-terminal specific) Antibody tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1 µg of conjugate. The starting dilution of antibody was 5 µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using 3% fish gel, Goat anti-Rabbit IgG Antibody Peroxidase Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) (p/n orb347654) and TMB ELISA Peroxidase Substrate (p/n orb348651).



Immunofluorescence microscopy of Rabbit Anti-PPAR alpha (N-terminal specific) antibody using (A) Mouse NIH/3T3 or (B) Human HEK293 cells fixed with MeOH. (C) Secondary antibody only with NIH/3T3 cells. Anti-PPAR alpha antibody was used at 10 µg/ml, 1h at RT⁰. Secondary antibody: Anti-RABBIT IgG DyLight™ 488 Conjugated Preadsorbed at 5 ug/ml for 1 h at RT. Staining: PPAR as green fluorescent signal with DAPI (blue) nuclear counterstain.



Immunofluorescence Microscopy of Rabbit anti-PPAR alpha antibody. Tissue: HepG2 cells. Fixation: 4% formaldehyde fixed (10 min). Antigen retrieval: not required. Primary antibody: PPAR alpha antibody at 1 µg/ml overnight at 4°C. Secondary antibody: Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (green) used at a 1:1000, Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1:200 dilution for 1h for 45 min at RT. Localization: PPAR alpha is nuclear and occasionally cytoplasmic. Staining: PPAR alpha as green fluorescent signal with DAPI (blue) nuclear counterstain.

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

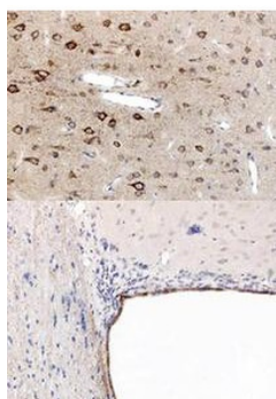
Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

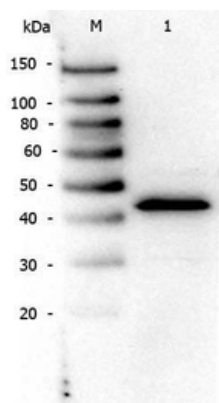
Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) showing Biorbyt's PPAR alpha antibody staining of PPAR alpha protein in mouse liver tissue section (Formalin/PFA-fixed paraffin-embedded sections). Tissue underwent formaldehyde fixation before enzymatic antigen retrieval with 0.05% protease in PBS for 5 minutes. Sample was then blocked with 5% serum for 20 minutes at 20°C. The primary antibody was diluted 1:50 and incubated with sample in Tris plus 5% normal goat serum for 1 hour at 20°C. A Biotin conjugated goat polyclonal to rabbit IgG was used at dilution at 1:500 as secondary antibody. Images show nuclear staining in hepatocytes (perfusion-fixed mouse, 10 and 40x microscope magnification).



Immunohistochemistry using Biorbyt's anti-PPAR antibody, showing staining of PPAR alpha in rat brain sections, highlighting cytoplasmic staining in ependymal cells and neurons in frontal cortex. Bottom image shows subventricular zone (svz) of lateral ventricle (exit point of progenitor olfactory neurones); top image shows frontal cortex in the same section. Cytoplasmic staining is also observed in the corpus callosum (bottom image) and in dendritic fields of the cortex. Formalin/PFA-fixed paraffin-embedded sections of rat brain tissue were incubated with the primary antibody at 1:200 for 1 hour. Antigen retrieval was performed by heat induction in citrate buffer pH6.0.



Western Blot of Rabbit anti-PPAR Alpha (N-terminal Specific) antibody. Lane M: Prestained Molecular Weight Markers. Lane 1: NIH/3T3 (p/n orb348714). Load: 10 µg per lane. Primary antibody: PPAR Alpha (N-terminal specific) antibody at 1:1000 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n orb347654) at 1:40000 for 30 min at RT. Block: Blocking Buffer for Fluorescent Western Blotting (p/n orb348637) at RT for 30 min. Predicted/Observed size: ~50 kDa for PPAR Alpha.

Biorbyt Ltd.

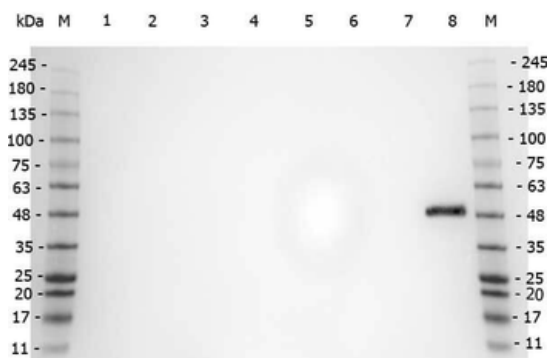
7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



Western Blot of Rabbit anti-PPAR Alpha (N-terminal specific) antibody. Marker: Opal Pre-stained ladder. Lane 1: HEK293 lysate (p/n orb348669). Lane 2: HeLa Lysate (p/n orb348668). Lane 3: MCF-7 Lysate (p/n orb348664). Lane 4: Jurkat Lysate. Lane 5: A431 Lysate (p/n orb348665). Lane 6: LNCaP Lysate (p/n orb348694). Lane 7: A-172 Lysate (p/n orb348708). Lane 8: NIH/3T3 Lysate (p/n orb348714). Load: 35 µg per lane. Primary antibody: PPAR Alpha (N-terminal specific) antibody at 1 ug/ml overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n orb347654) at 1:30000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 52 kDa for PPAR Alpha.

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)