

Anti-PPAR alpha Antibody

Catalog Number: A00600

About PPARA

Since their discovery in the early 1990's, the peroxisome proliferator activated receptors (PPARs) have attracted significant attention. This is primarily because PPARs serve as receptors for two very important classes of drugs: the hypolipidemic fibrates and the insulin sensitizing thiazolidinediones. Peroxisome proliferators are non-genotoxic carcinogens that are purported to exert their effect on cells through their interaction with members of the nuclear hormone receptor family termed PPARs. Nuclear hormone receptors are ligand-dependent intracellular proteins that stimulate transcription of specific genes by binding to specific DNA sequences following activation by the appropriate ligand. Upon binding fatty acids or hypolipidemic drugs, PPARs form heterodimers with retinoid X receptors (RXRs) and these heterodimers regulate the expression of target genes. There are 3 known subtypes of PPARs: PPAR-alpha, PPAR-delta and PPAR-gamma. Mostly target genes are involved in the catabolism of fatty acids. Conversely, PPAR-gamma is activated by peroxisome proliferators such as prostaglandins, leukotrienes and Anti diabetic thiazolidinediones and affects the expression of genes involved in the storage of the fatty acids. PPAR-gamma may also be involved in adipocyte differentiation. It has also been shown that PPARs can induce transcription of acyl coenzyme A oxidase and cytochrome P450 through interaction with specific response elements. Anti-Ppar Antibody is useful for research interested in transcription and metabolic pathways.

Overview

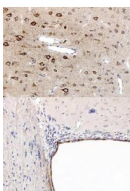
Product Name	Anti-PPAR alpha Antibody
Reactive Species	Human, Mouse
Description	Boster Bio Anti-PPAR alpha Antibody (Catalog # A00600). Tested in ELISA, IF, IHC, WB applications. This antibody reacts with Human, Mouse.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	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. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P23204

Technical Details

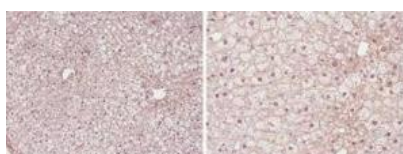
Immunogen	PPAR alpha Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a N-Terminal region near amino acids 1-25 of mouse PPAR alpha.
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Predicted Reactive Species	Boar, Bovine, Canine, Golden Hamster
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	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.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:75,000 - 1:125,000</p> <p>Flow Cytometry: User optimized</p> <p>IHC: 1:100-1:300</p> <p>IF Microscopy: 1-5µg/mL</p> <p>WB: 1:500 - 1:2,000</p>

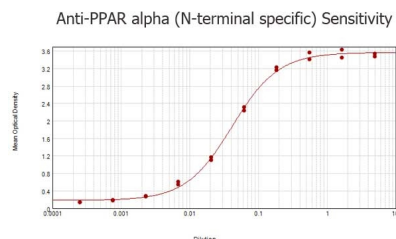
Anti-PPAR alpha Antibody (A00600) Images



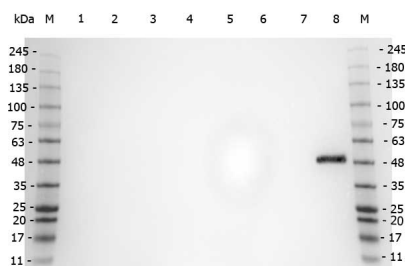
PPAR alpha was detected in paraffin-embedded sections of rat brain tissues using rabbit anti-PPAR alpha (N-terminal specific) affinity purified polyclonal antibody (Catalog # A00600) at 1:200. Bottom image shows subventricular zone (svz) of lateral ventricular (exit point of progenitor olfactory neurones)



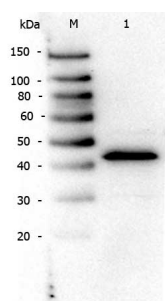
PPAR alpha was detected in paraffin-embedded sections of mouse liver tissues using rabbit anti-PPAR alpha (N-terminal specific) affinity purified polyclonal antibody (Catalog # A00600) at 1:50. Images show nuclear staining in hepatocytes (10 and 40x microscope magnification). The immunohistochemical section was developed using SABC method (Catalog # SA1022).



ELISA results of rabbit anti-PPAR alpha (N-terminal specific) affinity purified polyclonal antibody (Catalog # A00600) tested against BSA-conjugated peptide of immunizing peptide. Each well was coated in duplicate with 0.1



Western blot analysis of PPAR alpha expression in HEK293 cell lysates (lane 1), HeLa cell lysates (lane 2), MCF-7 cell lysates (lane 3), Jurkat cell lysates (lane 4), A431 cell lysates (lane 5), LNCaP cell lysates (lane 6), A-172 cell lysates (lane 7) and NIH/3T3 cell lysates (lane 8). Load: 35



Western blot analysis of PPAR alpha expression in 10

1. PubMed ID: 10.1016/j.lfs.2020.118147, MicroRNA-708 prevents ethanol-induced hepatic lipid accumulation and inflammatory reaction via direct targeting ZEB1
2. PubMed ID: 10.1002/jsfa.10133, Structural and antioxidant analysis of Tartary buckwheat (*Fagopyrum tartaricum* Gaertn.) 13S globulin
3. PubMed ID: 32732169, Li J,Liu FW,Wu DB,Chen EQ,Chen XJ,Chen SC,Liu C,Zhao LS,Tang H,Zhou TY.TRAIL inhibits HBV replication and expression by down-regulating liver-enriched transcription factors.*Arab J Gastroenterol.*2020 Sep;21(3):169-173.doi:10.1016/j.ajg.2020.05.002.Epub 20

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