ROCKLAND
Immunochemicals for Research
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Certificate of Analysis

Product: Affinity Purified Anti-PPAR gamma 2 (N-terminal specific) (Rabbit)

Code: 600-401-418 **Lot #:** 12409

Size: 100 μg **Physical State:** Liquid (sterile filtered)

Antibody Concentration: 0.57 mg/ml (by UV absorbance at 280 nm)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None **Preservative:** 0.01% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. Dilute only prior to immediate use. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Expiration date is one (1) year from date of opening.

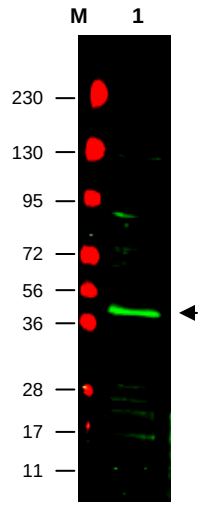

Figure. Western blot using Rockland's affinity purified anti-PPARγ2 antibody shows detection of PPARγ2 protein in a mouse 3T3 whole cell lysate (lane 1 arrowhead). Approximately 20 μg of lysate was loaded onto a 4-20% gradient gel followed by transfer to nitrocellulose. Primary antibody was used at a 1:2,000 dilution in 5% BLOTTO PBS solution. The membrane was washed and reacted with a 1:10,000 dilution of IRDye™800 Conjugated Affinity Purified Goat-anti-Rabbit IgG [H&L] MX10. Molecular weight estimation was made by comparison to prestained MW markers indicated at the left (lane M). Other detection systems will yield similar results.

Background Information: 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. The target genes of PPAR-alpha and PPAR-delta are primarily 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 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.

Application Note(s): This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a single band approximately 55 kDa in size corresponding to PPARγ2 by western blot in the appropriate tissue or cell lysate.

Recommended Dilutions:

ELISA	1:4,000 - 1:40,000
WESTERN BLOT	1:1,000 - 1:3,000
IMMUNOHISTOCHEMISTRY	User Optimized
OTHER APPLICATIONS	User Optimized

Purity and Specificity: This affinity purified antibody is directed against human PPAR gamma isoform 2 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human and macaque based on 100% homology for the immunogen sequence. Cross reactivity with PPARγ2 protein from dog and swine is likely due to 94% homology (15/16 identities) with the protein from these sources. Cross reactivity does occur with PPARγ2 from mouse. Mouse PPARγ2 shows 87% homology to the immunogen. Cross reactivity with PPARγ2 homologues from other sources has not been determined. No reactivity is expected against other subtypes of PPAR.

Relevant Link(s): Swiss Prot: P37231 NCBI Link NP_056953

Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the amino terminus of human PPAR gamma 2.

General Reference(s):

De Pascale,M.C., Bassi,A.M., Patrone,V., Villacorta,L., Azzi,A. and Zingg,J.M. (2006) Increased expression of transglutaminase-1 and PPARgamma after vitamin E treatment in human keratinocytes. *Arch. Biochem. Biop*hys. **447** (2), 97-106.

Lodillinsky,C., Umerez,M.S., Jasnis,M.A., Casabe,A., Sandes,E. and Eijan,A.M. (2006) Bacillus Calmette-Guerin induces the expression of peroxisome proliferator-activated receptor gamma in bladder cancer cells. *Int. J. Mol. Med*. **17** (2), 269-273.

Schild,R.L., Sonnenberg-Hirche,C.M., Schaiff,W.T., Bildirici,I., Nelson,D.M. and Sadovsky,Y. (2006) The kinase p38 regulates peroxisome proliferator activated receptor-gamma in human trophoblasts. *Placenta* **27** (2-3), 191-199.

Pandhare,J., Cooper,S.K. and Phang,J.M. (2006) Proline oxidase, a proapoptotic gene, is induced by troglitazone: evidence for both peroxisome proliferator-activated receptor gamma-dependent and -independent mechanisms. *J. Biol. Che*m. **281** (4), 2044-2052.

Sastre,M., Dewachter,I., Rossner,S., Bogdanovic,N., Rosen,E., Borghgraef,P., Evert,B.O., Dumitrescu-Ozimek,L., Thal,D.R., Landreth,G., Walter,J., Klockgether,T., van Leuven,F. and Heneka,M.T. (2006) Nonsteroidal anti-inflammatory drugs repress beta-secretase gene promoter activity by the activation of PPARgamma. *Proc. Natl. Acad. Sci. U.S.A.* **103** (2), 443-448.

Related Products:

#600-401-418	Affinity Purified Anti-PPAR gamma 2 (RABBIT)	
#600-401-419	Affinity Purified Anti-PPAR gamma 1 and 2 (RABBIT)	
#600-401-420	Affinity Purified Anti-PPAR delta (RABBIT)	
#600-401-421	Affinity Purified Anti-PPAR alpha (RABBIT)	
#611-703-127	Peroxidase Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (DONKEY) MX10	
#611-132-122	IRDye800 Conjugated Affinity Purified Anti-RABBIT IgG (H&L) (GOAT) MX10	
#B501-0500	500 g	BLOTTO
#BSA-30	500 ml	30% BOVINE SERUM ALBUMIN SOL'N in 0.85% sodium chloride (no preservative or stabilizer)
#B304	10 ml	NORMAL GOAT SERUM (NGS)
#KIA-003	***Max*Tag**™ Anti-RABBIT IgG Kit for Immunoblotting	
#MB-070	Blocking Buffer for Fluorescent Western Blotting	

USDA Certification: All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation.

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.