Product Information

PPARδ Polyclonal Antibody

Item No. 101720 • Lot No. XXXX

Synonyms: FAAR, NUC1, Nuclear Hormone Receptor 1, PPARβ

Contents: This vial contains (100-500 µg of peptide affinity-purified IgG, ***lot specific***) in 500 µl TBS, pH 7.4, containing 50% glycerol, 0.1% BSA, and 0.02% sodium azide

Host: Rabbit

Antigen: This antibody was raised against human PPARδ amino acids 39-54 (SSSYTDLSRSSSPPSL). The antigen alignment with sequences from other species is as follows:

Human PPARδ	SSSYTDLSRSSSPPSL
Mouse PPARδ	SSSc a DLS qnSSP s SL
Porcine PPARδ	SSSc TDLS qScSPPaL
Rat PPARδ	SSSc TDLS qnSSP s SL

Cross-reactivity: (+) Human, mouse, ovine, porcine, and rat PPARδ; other species not tested

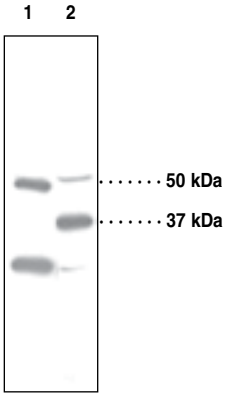
Stability: ≥1 year at -20°C

Applications: Recommended dilutions for western blot (***lot specific*** µg/ml), immunohistochemistry, and immunocytochemistry (4 µg/ml). Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

Concentration: Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 ml final working volume for western blotting.

PPARδ is one of three peroxisome proliferator-activated receptor (PPAR) subtypes that possess a domain structure common to other members of the nuclear receptor gene family. It was first cloned from *Xenopus laevis* and named PPARβ.[1] PPARδ is ubiquitously expressed but is particularly abundant in tissues such as liver, intestine, kidney, abdominal adipose, and skeletal muscle, all of which are involved in lipid metabolism.[2] PPARδ is a mediator of diverse physiological functions including lipid and cholesterol homeostasis, embryo implantation, and cancer development.[3-6] Most recently, attention has been focused on the role of PPARδ in obesity.[7]

Cayman's PPARδ polyclonal antibody can be used for western blot, immunohistochemistry, and immunocytochemistry to study the expression and functions of this protein. The antibody recognizes PPARδ at 50 kDa from human samples. An additional smaller size of PPARδ (~40 kDa)[8] is also detected in certain mouse tissues.



Lane 1: Human cerebral cortex (30 µg)
Lane 2: Murine liver (30 µg)

Laboratory Procedures

Immunofluorescent staining of cultured cells

1. Wash (attached) cells briefly with TBS and fix cells 10 minutes in 1% formalin in TBS, pH 7.4.
2. Wash cells 3 times in TBS, pH 7.4, 5 minutes each.
3. Incubate cells with 5% normal serum from the same species as the host of the secondary antibody in TBS, pH 7.4, containing 0.1% Triton X-100 for 30 minutes.
4. Incubate cells with 4 µg/ml PPARδ polyclonal antibody in TBS, pH 7.4, containing 0.1% Triton X-100 (recommended starting dilution. Optimal dilution to be determined by end user) for 1 hour at room temperature.
5. Wash cells 3 times in TBS, pH 7.4, containing 0.1% Triton X-100, 5 minutes each.
6. Incubate cells for 1 hour with an anti-rabbit IgG fluorochrome conjugate in TBS, pH 7.4, containing 0.1% Triton X-100, using a dilution as recommended by provider.
7. Wash cells 3 times in TBS, pH 7.4, containing 0.1% Triton X-100, 5 minutes each.
8. Counter-stain cells if desired.

The stained cells are now ready to be examined under a fluorescent microscope.

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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References

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