For Research Use Only

## CoraLite® Plus 647-conjugated PPAR Gamma Monoclonal antibody

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Catalog Number: CL647-60127

**Basic Information** 

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1000 µg/ml

**UNIPROT ID:** Source: Mouse P37231 Full Name: Isotype: lgG1 peroxisome proliferator-activated

Immunogen Catalog Number:

AG10005

Calculated MW: 58 kDa Observed MW:

receptor gamma

BC006811

5468

GeneID (NCBI):

GenBank Accession Number:

50-60 kDa

**Purification Method:** Protein G purification

CloneNo.: 4E12F10

Excitation/Emission maxima

wavelengths: 654 nm / 674 nm

**Applications** 

**Tested Applications:** 

Species Specificity:

human, mouse, rat

## **Background Information**

Peroxisome Proliferator-Activated Receptors (PPARs) are ligand-activated intracellular transcription factors, members of the nuclear hormone receptor superfamily (NR), that includes estrogen, thyroid hormone receptors, retinoic acid, Vitamin D3 as well as retinoid X receptors (RXRs). The PPAR subfamily consists of three subtypes encoded by distinct genes denoted PPAR  $\alpha$  (NR1C1), PPAR  $\beta$  /  $\delta$  (NR1C2) and PPAR  $\gamma$  (NR1C3), which are activated by selective ligands. PPAR  $\gamma$  , also named as PPARG, contains one nuclear receptor DNA-binding domain and is a receptor that binds peroxisome proliferators such as hypolipidemic drugs and fatty acids. It plays an important role in the regulation of lipid homeostasis, adipogenesis, INS resistance, and development of various organs. Defects in PPARG are the cause of familial partial lipodystrophy type 3 (FPLD3) and may be associated with susceptibility to  $obesity.\ Defects\ in\ PPARG\ can\ lead\ to\ type\ 2\ INS-resistant\ diabetes\ and\ hypertension.\ PPARG\ mutations\ may\ be$ associated with colon cancer. Genetic variations in PPARG are associated with susceptibility to glioma type 1 (GLM1). PPARG has two isoforms with molecular weight 57 kDa and 54 kDa (PMID: 9831621), but modified PPARG is about 67 KDa (PMID: 16809887). PPARG2 is a splice variant and has an additional 30 amino acids at the N-terminus (PMID: 15689403). Experimental data indicate that a 45 kDa protein displaying three different sequences immunologically related to the nuclear receptor PPARG2 is located in mitochondria (mt-PPAR). However, the molecular weight of this protein is clearly less when compared to that of PPARG2 (57 kDa). (PMID: 10922459). PPARG has been reported to be localized mainly (but not always) in the nucleus. PPARG can also be detected in the cytoplasm and was reported to possess extra-nuclear/non-genomic actions (PMID: 17611413; 19432669; 14681322).

Storage

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

Selected Validation Data