


# PPAR gamma Transcription Factor Assay Kit ab133101

★★★★★ **3 Abreviews**   **21 References**   画像数 **4**

### 製品の概要

製品名	PPAR gamma Transcription Factor Assay Kit
検出方法	Colorimetric
サンプルの種類	Adherent cells, Suspension cells, Nuclear Extracts
アッセイタイプ	Semi-quantitative
種交差性	交差種: Mouse, Rat, Human 交差が予測される動物種: Mammals 

### 製品の概要

PPAR gamma Transcription Factor Assay kit ab133101 is a non-radioactive, sensitive method for detecting specific transcription factor DNA binding activity in nuclear extracts.

A 96 well enzyme-linked immunosorbent assay (ELISA) replaces the cumbersome radioactive electrophoretic mobility shift assay (EMSA). A specific double stranded DNA (dsDNA) sequence containing the peroxisome proliferator response element (PPRE) is immobilized onto the bottom of wells of a 96 well plate. PPARs contained in a nuclear extract bind specifically to the PPRE. PPAR gamma is detected by addition of specific primary antibody directed against PPAR gamma. A secondary antibody conjugated to HRP is added to provide a sensitive colorimetric readout at 450 nm. PPAR gamma will not crossreact with PPAR delta or PPAR alpha.

### 特記事項

Peroxisome proliferator-activated receptors (PPARs) are ligand activated nuclear receptors. Three PPAR subtypes have been identified: alpha, delta and gamma. PPARs can be activated by polyunsaturated fatty acids, eicosanoids and various synthtic ligands.

PPAR gamma is primarily expressed in adipose tissue and to a lesser extent in the colon, immune system and the retina. PPAR gamma was first identified as regulator of adipogenesis, but also plays an important role in cellular differentiation, insulin sensitization , atherosclerosis and cancer.

### 試験プラットフォーム

Microplate reader

### 製品の特性

#### 保存方法

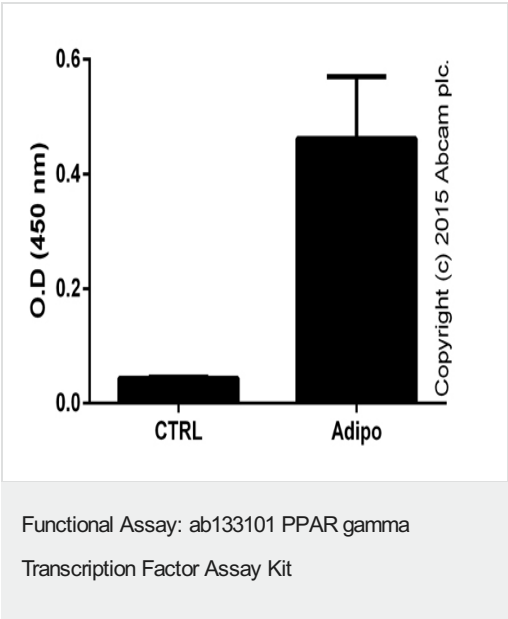
Please refer to protocols.

内容	96 tests
96-Well Plate Cover	1 unit

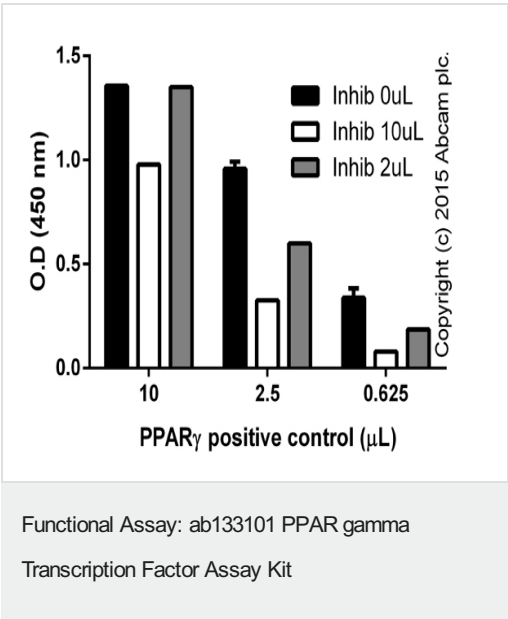
内容	96 tests
Polysorbate 20	1 vial
Transcription Factor Antibody Binding Buffer (10X)	1 x 3ml
Transcription Factor Binding Assay Buffer (4X)	1 x 3ml
Transcription Factor Developing Solution	1 x 12ml
Transcription Factor Goat Anti-Rabbit HRP Conjugate	1 x 100µl
Transcription Factor PPAR 96-Well Strip Plate	1 unit
Transcription Factor PPAR Competitor dsDNA	1 vial
Transcription Factor PPAR gamma Positive Control	1 vial
Transcription Factor PPAR gamma Primary Antibody	1 vial
Transcription Factor Reagent A	1 x 120µl
Transcription Factor Stop Solution	1 x 12ml
Wash Buffer Concentrate (400X)	1 x 5ml

<b>機能</b>	Receptor that binds peroxisome proliferators such as hypolipidemic drugs and fatty acids. Once activated by a ligand, the receptor binds to a promoter element in the gene for acyl-CoA oxidase and activates its transcription. It therefore controls the peroxisomal beta-oxidation pathway of fatty acids. Key regulator of adipocyte differentiation and glucose homeostasis.
<b>組織特異性</b>	Highest expression in adipose tissue. Lower in skeletal muscle, spleen, heart and liver. Also detectable in placenta, lung and ovary.
<b>関連疾患</b>	<p>Note=Defects in PPARG can lead to type 2 insulin-resistant diabetes and hypertension. PPARG mutations may be associated with colon cancer.</p> <p>Defects in PPARG may be associated with susceptibility to obesity (OBESITY) [MIM:601665]. It is a condition characterized by an increase of body weight beyond the limitation of skeletal and physical requirements, as the result of excessive accumulation of body fat.</p> <p>Defects in PPARG are the cause of familial partial lipodystrophy type 3 (FPLD3) [MIM:604367]. Familial partial lipodystrophies (FPLD) are a heterogeneous group of genetic disorders characterized by marked loss of subcutaneous (sc) fat from the extremities. Affected individuals show an increased preponderance of insulin resistance, diabetes mellitus and dyslipidemia.</p> <p>Genetic variations in PPARG can be associated with susceptibility to glioma type 1 (GLM1) [MIM:137800]. Gliomas are central nervous system neoplasms derived from glial cells and comprise astrocytomas, glioblastoma multiforme, oligodendrogliomas, and ependymomas.</p> <p>Note=Polymorphic PPARG alleles have been found to be significantly over-represented among a cohort of American patients with sporadic glioblastoma multiforme suggesting a possible contribution to disease susceptibility.</p>
<b>配列類似性</b>	<p>Belongs to the nuclear hormone receptor family. NR1 subfamily.</p> <p>Contains 1 nuclear receptor DNA-binding domain.</p>

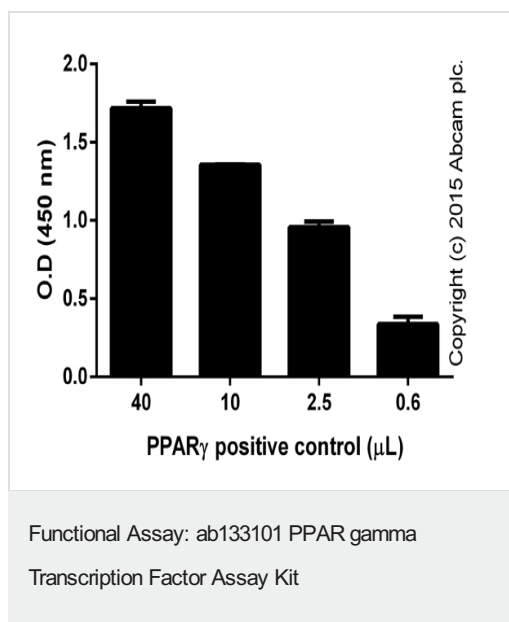
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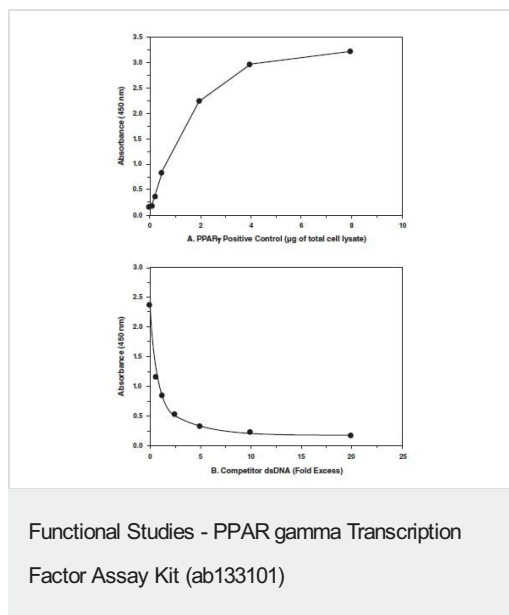
3T3-L1 cells were differentiated to adipocytes with 1 uM dexamethasone ([ab120743](#)), 1 ug x mL<sup>-1</sup> insulin ([ab123768](#)) and 0.5 mM IBMX ([ab120840](#)). From the third day, the cells were grown in normal medium with the addition of only 1 ug x mL<sup>-1</sup> insulin. From day six, the cells were cultured in normal medium for an additional two days. 40 uL of nuclear extracts were tested in duplicates (+/- SD).



Different volumes of positive control with inhibitor (duplicates, +/- SD).



Different volumes of positive control (duplicates, +/-SD).



Panel A: Increasing amounts of positive control (total lysate) are assayed for PPAR gamma DNA-binding activity using ab133101.

Panel B: PPAR gamma DNA-binding assays are performed in the presence of competitive dsDNA. The decrease in signal caused by addition of competitive dsDNA confirms the assay specificity.

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