

PPARA/PPARD/PPARG Complete Transcription Factor Assay Kit

Catalog # KA1357

Size 1 Kit

Applications

Positive Control

Positive Control

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Increasing amounts of positive control (total lysate) are assayed for PPARA, PPARD, and PPARG DNA-binding activity.

Specification

Product Description

PPARA/PPARD/PPARG Complete Transcription Factor Assay Kit is a non-radioactive, sensitive method for detecting PPAR-alpha, delta, gamma transcription factor DNA binding activity in nuclear extracts and whole cell lysates.

Regulation Status

For research use only (RUO)

Storage Instruction

Store the kit at -80°C temporarily. For best results, store the components as described in the protocol.

Note

Positive Control
Positive Control
Increasing amounts of positive control (total lysate) are assayed for PPARA, PPARD, and PPARG DNA-binding activity.

Applications

- Functional Study

Gene Info — PPARA

Entrez GeneID	5465
Gene Name	PPARA
Gene Alias	MGC2237, MGC2452, NR1C1, PPAR, hPPAR
Gene Description	peroxisome proliferator-activated receptor alpha
Omim ID	170998
Gene Ontology	Hyperlink
Gene Summary	Peroxisome proliferators include hypolipidemic drugs, herbicides, leukotriene antagonists, and plasticizers; this term arises because they induce an increase in the size and number of peroxisomes. Peroxisomes are subcellular organelles found in plants and animals that contain enzymes for respiration and for cholesterol and lipid metabolism. The action of peroxisome proliferators is thought to be mediated via specific receptors, called PPARs, which belong to the steroid hormone receptor superfamily. PPARs affect the expression of target genes involved in cell proliferation, cell differentiation and in immune and inflammation responses. Three closely related subtypes (alpha, beta/delta, and gamma) have been identified. This gene encodes the subtype PPAR-alpha, which is a nuclear transcription factor. Multiple alternatively spliced transcript variants have been described for this gene, although the full-length nature of only two has been determined. [provided by RefSeq]
Other Designations	OTTHUMP00000028713 OTTHUMP00000042872 peroxisome proliferative activated receptor, alpha peroxisome proliferator activated receptor alpha

Gene Info — PPARD

Entrez GeneID	5467
Gene Name	PPARD
Gene Alias	FAAR, MGC3931, NR1C2, NUC1, NUCI, NUCII, PPAR-beta, PPARB
Gene Description	peroxisome proliferator-activated receptor delta
Omim ID	600409
Gene Ontology	Hyperlink

Gene Summary

This gene encodes a member of the peroxisome proliferator-activated receptor (PPAR) family. PPARs are nuclear hormone receptors that bind peroxisome proliferators and control the size and number of peroxisomes produced by cells. PPARs mediate a variety of biological processes, and may be involved in the development of several chronic diseases, including diabetes, obesity, atherosclerosis, and cancer. This protein is a potent inhibitor of ligand-induced transcription activity of PPAR alpha and PPAR gamma. It may function as an integrator of transcription repression and nuclear receptor signaling. The expression of this gene is found to be elevated in colorectal cancer cells. The elevated expression can be repressed by adenomatosis polyposis coli (APC), a tumor suppressor protein related to APC/beta-catenin signaling pathway. Knockout studies in mice suggested the role of this protein in myelination of the corpus callosum, lipid metabolism, and epidermal cell proliferation. [provided by RefSeq]

Other Designations

OTTHUMP00000016256|nuclear hormone receptor 1|peroxisome proliferative activated receptor, delta

Gene Info — PPARG

Entrez GeneID

[5468](#)

Gene Name

PPARG

Gene Alias

CIMT1, NR1C3, PPARG1, PPARG2, PPARgamma

Gene Description

peroxisome proliferator-activated receptor gamma

Omim ID

[137800](#) [151660](#) [601487](#) [601665](#) [604367](#) [609830](#)

Gene Ontology

[Hyperlink](#)

Gene Summary

This gene encodes a member of the peroxisome proliferator-activated receptor (PPAR) subfamily of nuclear receptors. PPARs form heterodimers with retinoid X receptors (RXRs) and these heterodimers regulate transcription of various genes. Three subtypes of PPARs are known: PPAR-alpha, PPAR-delta, and PPAR-gamma. The protein encoded by this gene is PPAR-gamma and is a regulator of adipocyte differentiation. Additionally, PPAR-gamma has been implicated in the pathology of numerous diseases including obesity, diabetes, atherosclerosis and cancer. Alternatively spliced transcript variants that encode different isoforms have been described. [provided by RefSeq]

Other Designations

OTTHUMP00000185030|OTTHUMP00000185033|OTTHUMP00000185037|PPAR gamma|nuclear receptor subfamily 1 group C member 3|peroxisome proliferative activated receptor gamma|peroxisome proliferative activated receptor, gamma|peroxisome proliferator activated receptor

Pathway

- [Acute myeloid leukemia](#)
- [Adipocytokine signaling pathway](#)

- [Pathways in cancer](#)
- [Pathways in cancer](#)
- [PPAR signaling pathway](#)
- [PPAR signaling pathway](#)
- [PPAR signaling pathway](#)
- [Thyroid cancer](#)
- [Wnt signaling pathway](#)

Disease

- [Adenocarcinoma](#)
- [Adenocarcinoma](#)
- [Adenocarcinoma](#)
- [Adenoma](#)
- [Adenoma](#)
- [Adenomatous Polyps](#)
- [Albuminuria](#)
- [Alcoholism](#)
- [Alzheimer disease](#)
- [Alzheimer disease](#)
- [Alzheimer disease](#)
- [Amyotrophic lateral sclerosis](#)
- [Angina Pectoris](#)
- [Anorexia Nervosa](#)
- [Aortic Aneurysm](#)
- [Arrhythmogenic Right Ventricular Dysplasia](#)
- [Arterial Occlusive Diseases](#)

- [Arteriosclerosis](#)
- [Arteriosclerosis](#)
- [Arthritis](#)
- [Asthma](#)
- [Atherosclerosis](#)
- [Atherosclerosis](#)
- [Atherosclerosis](#)
- [Biliary Tract Neoplasms](#)
- [Biliary Tract Neoplasms](#)
- [Bipolar Disorder](#)
- [Birth Weight](#)
- [Body Weight](#)
- [Body Weight](#)
- [Body Weight](#)
- [Bone Diseases](#)
- [Brain Ischemia](#)
- [Brain Ischemia](#)
- [Breast cancer](#)
- [Breast cancer](#)
- [Breast Diseases](#)
- [Breast Neoplasms](#)
- [Breast Neoplasms](#)
- [Bulimia](#)
- [Calcinosis](#)
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- [Calcinosis](#)

- [Carcinoma](#)
- [Carcinoma](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cardiovascular Diseases](#)
- [Cardiovascular Diseases](#)
- [Carotid Artery Diseases](#)
- [Cellulitis](#)
- [Cerebrovascular Accident](#)
- [Chest Pain](#)
- [Chorioamnionitis](#)
- [Chorioamnionitis](#)
- [Chronic Disease](#)
- [Cognition Disorders](#)
- [Colitis](#)
- [Colon cancer](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colonic Neoplasms](#)
- [Colonic Polyps](#)
- [Colorectal Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Constriction](#)
- [Coronary Artery Disease](#)
- [Coronary Artery Disease](#)
- [Coronary Artery Disease](#)

- [Coronary Disease](#)
- [Coronary Disease](#)
- [Coronary Disease](#)
- [Coronary Restenosis](#)
- [Coronary Restenosis](#)
- [Coronary Stenosis](#)
- [Coronary Stenosis](#)
- [Crohn Disease](#)
- [Dementia](#)
- [Dementia](#)
- [Dental Plaque](#)
- [Diabetes](#)
- [Diabetes Complications](#)
- [Diabetes Complications](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Diabetic Angiopathies](#)
- [Diabetic Angiopathies](#)
- [Diabetic Nephropathies](#)
- [Diabetic Neuropathies](#)
- [Diabetic Retinopathy](#)
- [Disease Progression](#)
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- [Disease Progression](#)

- [Disease Susceptibility](#)
- [Drug Toxicity](#)
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- [Dyslipidemias](#)
- [Dyslipidemias](#)
- [Dyslipidemias](#)
- [Dyspepsia](#)
- [Edema](#)
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- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
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- [Esophageal Neoplasms](#)
- [Esophagitis](#)
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- [Fatty Liver](#)
- [Fatty Liver](#)
- [Fatty Liver](#)
- [Femur Head Necrosis](#)
- [Fetal Membranes](#)
- [Fetal Membranes](#)
- [Gallstones](#)

- [Gastritis](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Glomerulonephritis](#)
- [Glomerulonephritis](#)
- [Glucose Intolerance](#)
- [Glucose Intolerance](#)
- [Glucose Metabolism Disorders](#)
- [Glucose Metabolism Disorders](#)
- [Graves Disease](#)
- [Graves Ophthalmopathy](#)
- [Growth Disorders](#)
- [Growth Disorders](#)
- [Hearing Loss](#)
- [Helicobacter Infections](#)
- [Hepatitis](#)
- [Hepatitis C](#)
- [Hirsutism](#)
- [HIV Infections](#)
- [HIV-Associated Lipodystrophy Syndrome](#)
- [Hodgkin Disease](#)
- [Hyperandrogenism](#)
- [Hypercholesterolemia](#)
- [Hypercholesterolemia](#)
- [Hypercholesterolemia](#)
- [Hyperglycemia](#)

- [Hyperglycemia](#)
- [Hyperinsulinism](#)
- [Hyperlipidemia](#)
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- [Hyperlipidemia](#)
- [Hyperlipidemias](#)
- [Hyperlipidemias](#)
- [Hyperlipidemias](#)
- [Hypertension](#)
- [Hypertension](#)
- [Hypertriglyceridemia](#)
- [Hypertriglyceridemia](#)
- [Hypertrophy](#)
- [Hypertrophy](#)
- [Hypertrophy](#)
- [Inflammation](#)
- [Inflammation](#)
- [Inflammation](#)
- [Insulin Resistance](#)
- [Insulin Resistance](#)
- [Insulin Resistance](#)
- [Kidney Diseases](#)
- [Kidney Failure](#)
- [Kidney Failure](#)
- [Kidney Failure](#)
- [Kidney Neoplasms](#)

- [Leiomyoma](#)
- [Lipid Metabolism](#)
- [Lipid Metabolism Disorders](#)
- [Lipodystrophy](#)
- [Liver Cirrhosis](#)
- [Liver Cirrhosis](#)
- [Liver Neoplasms](#)
- [Lung Neoplasms](#)
- [Lung Neoplasms](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Mental Status Schedule](#)
- [Metabolic Diseases](#)
- [Metabolic Syndrome X](#)
- [Metabolic Syndrome X](#)
- [Metabolic Syndrome X](#)
- [Microsatellite Instability](#)
- [Multiple Myeloma](#)
- [Multiple Sclerosis](#)
- [Multiple Sclerosis](#)
- [Myocardial Infarction](#)
- [Myocardial Infarction](#)
- [Neoplasm Recurrence](#)

- [Neoplasms](#)
- [Neoplasms](#)
- [Neoplasms](#)
- [Neuropsychological Tests](#)
- [Obesity](#)
- [Obesity](#)
- [Obesity](#)
- [Obstetric Labor](#)
- [Obstetric Labor](#)
- [Orbital Diseases](#)
- [Osteoarthritis](#)
- [Osteoporosis](#)
- [Osteoporosis](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Ovarian Neoplasms](#)
- [Overweight](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Peptic Ulcer](#)
- [Periodontitis](#)
- [Peripheral Vascular Diseases](#)
- [Peripheral Vascular Diseases](#)

- [Polycystic Ovary Syndrome](#)
- [Polycystic Ovary Syndrome](#)
- [Polycystic Ovary Syndrome](#)
- [Prediabetic State](#)
- [Pre-Eclampsia](#)
- [Pre-Eclampsia](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Premature Birth](#)
- [Prenatal Exposure Delayed Effects](#)
- [Prostate cancer](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Prostatic Neoplasms](#)
- [Psoriasis](#)
- [Psoriasis](#)
- [Psychiatric Status Rating Scales](#)
- [Psychomotor Performance](#)
- [Psychomotor Performance](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Radiation Injuries](#)
- [Radiation Injuries](#)
- [Radiation Injuries](#)
- [Radiation Pneumonitis](#)

- [Radiation Pneumonitis](#)
- [Radiation Pneumonitis](#)
- [Rectal Neoplasms](#)
- [Recurrence](#)
- [Renal Insufficiency](#)
- [Sarcoidosis](#)
- [Schizophrenia](#)
- [Schizophrenia](#)
- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Starvation](#)
- [Stomach Neoplasms](#)
- [Stroke](#)
- [Syndrome](#)
- [Syndrome](#)
- [Task Performance and Analysis](#)
- [Task Performance and Analysis](#)
- [Thinness](#)
- [Thrombophilia](#)
- [Thrombosis](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tobacco Use Disorder](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Neoplasms](#)

- [Ventricular Dysfunction](#)
- [Ventricular Dysfunction](#)
- [Weight Gain](#)
- [Weight Loss](#)
- [Werner syndrome](#)