ARBOR ASSAYS™

Interactive Assay Solutions™

2013 SUPPLEMENT

ASSAYS FOR SERIOUS SCIENCE™

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Allopregnanolone EIA Kits

Catalog No: K044-H1 (1 Plate) K044-H5 (5 Plate)

FEATURES

- Use — Measure this important Neurosteroid
- Sample — Serum and Plasma
- Species — Multiple species
- Samples/Kit — 40 or 232 in Duplicate
- Stability — Liquid, 4°C Stable Reagents

MULTI SPECIES

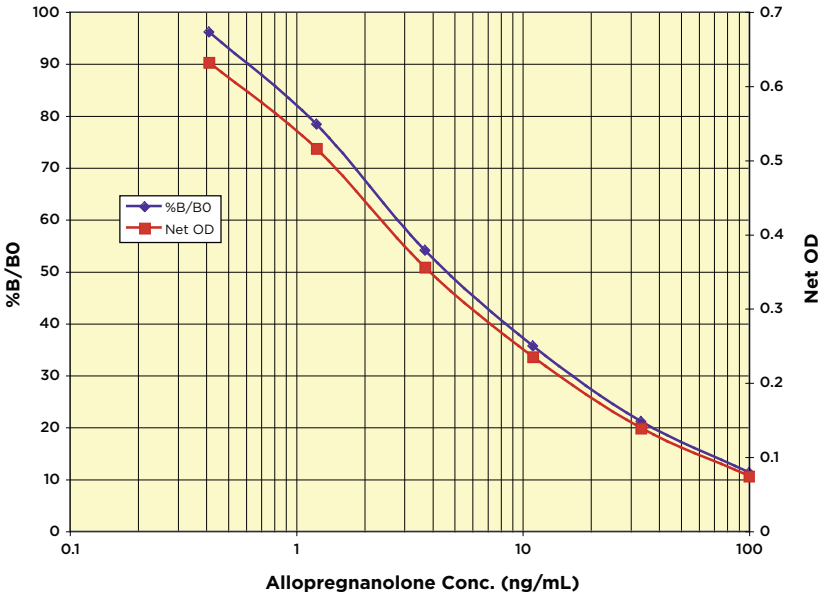
INTRODUCTION

Allopregnanolone (3α-hydroxy-5α-pregnan-20-one, THP, THPROG) is a prototypic neurosteroid present in the blood and the brain. It is a metabolite of progesterone and potent modulator of $GABA_A$ receptors. Allopregnanolone has pharmacological properties including anxiolytic and anticonvulsant activity. The biosynthesis of allopregnanolone involves the conversion of progesterone into 5α-dihydroprogesterone by the enzyme 5α-reductase type I. Subsequently, 3α-hydroxysteroid oxidoreductase isoenzymes convert this intermediate into allopregnanolone. Anxiety and depression are common side effects of 5α-reductase inhibitors such as finasteride and dutasteride, and they are believed to be caused, in part, by the prevention of the endogenous production of allopregnanolone.

The 5ß-epimer of this compound (pregnanolone; 3α-hydroxy-5ß-pregnan-20-one) has similar properties to allopregnanolone, and the 3ß-methyl analogue, ganaxolone, is under development to treat epilepsy and other conditions. Allopregnanolone may serve as an endogenous anticonvulsant and play a role in catamenial epilepsy. Allopregnanolone aids neurogenesis and has been found to reverse neuron proliferative deficit and cognitive deficits in mouse model of Alzheimer's disease.

The DetectX® Allopregnanolone Immunoassay Kit measures allopregnanolone present in serum and plasma samples. An allopregnanolone standard is provided for the assay. Standards or samples are pipetted into a coated clear microtiter plate. An allopregnanolone-peroxidase conjugate is added to the wells. The binding reaction is initiated by the addition of a polyclonal antibody to allopregnanolone. After a 2 hour incubation the plate is washed and substrate is added. The substrate reacts with the bound allopregnanolone-peroxidase conjugate and the color is measured at 450 nm.

TYPICAL DATA



RELATED PRODUCTS

Corticosterone EIA Kits	Catalog No. K014-H1/H5
Cortisol EIA Kits	Catalog No. K003-H1/H5/H1W/H5W
Acetylcholinesterase Fluorescent Activity Kit	Catalog No. K015-F1
Butyrylcholinesterase Fluorescent Activity Kit	Catalog No. K016-F1

DetectX®

BCA Dual Range Protein Colorimetric Detection Kit

Catalog No: K041-H1 (2 Plate)

FEATURES

- Use — Measure total protein content in samples
- Sample — Lysates, Urine, Serum, Plasma and Tissue
- Samples/Kit — 89 in Duplicate
- Sensitive — Measure as little as 1.7 ug/mL
- Stable — Room temperature, liquid reagents

MULTI SPECIES

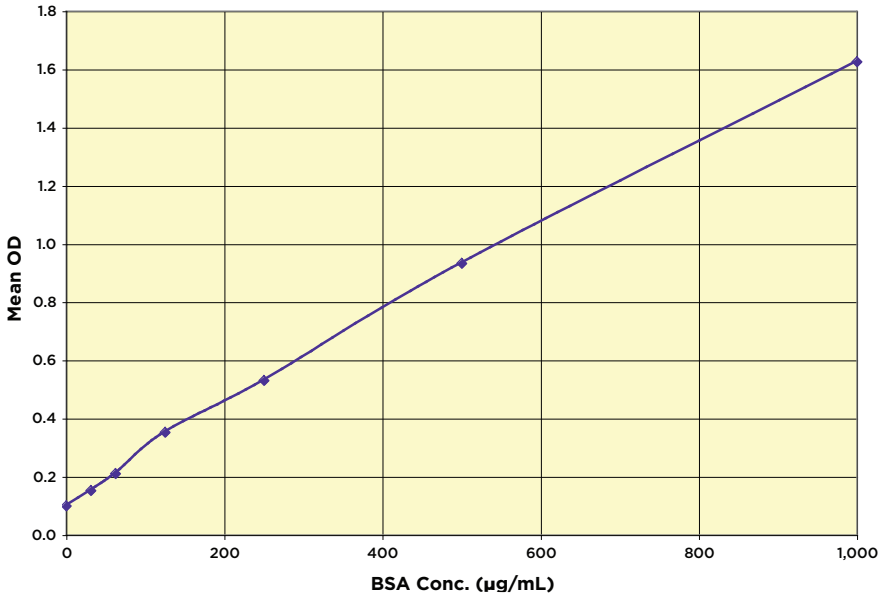
INTRODUCTION

Protein determination is one of the most common operations performed in biochemical research. The principle of the bicinchoninic acid (BCA) assay is similar to the Lowry assay, and relies on the formation of a Cu^{2+}-protein complex under alkaline conditions, followed by reduction of the Cu^{2+} to Cu^{1+}. The amount of reduction is proportional to protein present. It has been shown that cysteine, cystine, tryptophan, tyrosine, and peptide bonds are able to reduce Cu^{2+} to Cu^{1+}. BCA forms a purple-blue complex with Cu^{1+} in alkaline environments, thus providing a basis to monitor the reduction of alkaline Cu^{2+} by proteins.

The DetectX® BCA Protein Assay Kit is designed to quantitatively measure total protein content in a variety of samples. The kit provides everything needed to measure protein content of a sample and the assay measures all types of proteins from all species. A bovine serum albumin (BSA) standard is provided to generate a standard curve for the assay and all samples should be read off of the standard curve. Samples are diluted in water and added to the wells. The BCA Color Solution is made by mixing the BCA Reagent with the BCA Enhancer. The BCA Color Solution is added to all wells and the plate incubated at 37°C. Protein in the samples reacts with the BCA Color Reagent to generate a purple colored product which is read at 560 nm.

TYPICAL DATA

MOST SENSITIVE



RELATED PRODUCTS

Cyclic AMP Direct EIA and CLIA Kits	Catalog No. K019-H/C
Cyclic GMP Direct EIA and CLIA Kits	Catalog No. K020-H/C
Phosphokinase A (PKA) Activity Kit	Catalog No. K027-H1
Nitric Oxide Detection Kit	Catalog No. K023-H1

Catalase Colorimetric and Fluorescent Activity Kits

Colorimetric Kit Catalog No: K033-H1 (2 Plate)
Fluorescent Kit Catalog No: K033-F1 (2 Plate)

FEATURES

- Complete — Everything needed to measure Catalase activity
- Stable — Liquid, 4°C stable reagents
- Rapid — 45 minute assay
- Samples/Kit — 89 Samples in Duplicate

MULTI SPECIES

INTRODUCTION

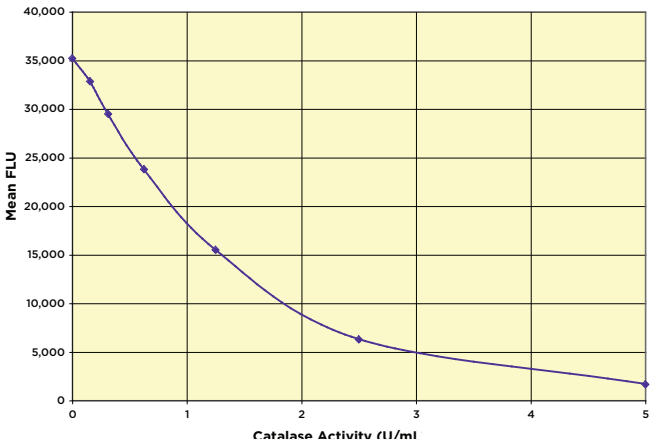
Hydrogen peroxide, H_2O_2 is one of the most frequently occurring reactive oxygen species. It is formed either in the environment or as a by-product of aerobic metabolism, superoxide formation and dismutation, or as a product of oxidase activity. Both excessive hydrogen peroxide and its decomposition product hydroxyl radical, formed in a Fenton-type reaction, are harmful for most cell components. One of the most efficient ways of removing peroxide is through the enzyme catalase, which is encoded by a single gene, and is highly conserved among species. High catalase activity is detected in peroxisomes.

The DetectX® Catalase Activity Kits are designed to quantitatively measure catalase activity in a variety of samples. A bovine catalase standard is provided. Samples are diluted in the provided Assay Buffer and added to the wells of a half area plate. Hydrogen peroxide is added to each well and the plate incubated at room temperature for 30 minutes. The kit specific supplied Detection Reagent is added, followed by diluted horseradish peroxidase and incubated at room temperature for 15 minutes. The HRP reacts with the substrate in the presence of hydrogen peroxide to produce either a colored or fluorescent product. The product is read in a plate reader capable of reading either optical or fluorescent signals and increasing levels of catalase in the samples causes a decrease in H_2O_2 concentration and a reduction in product yielded.

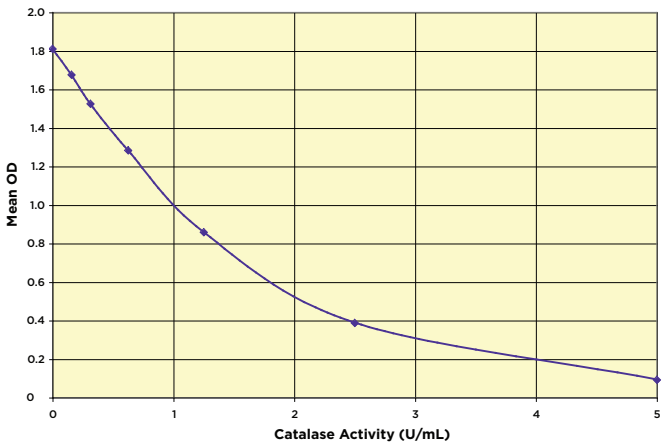
TYPICAL DATA

MOST SENSITIVE

Fluorescent Standard Curve



Colorimetric Standard Curve



RELATED PRODUCTS

Hydrogen Peroxide Fluorescent Detection Kit	Catalog No. K034-F1
Glutathione Fluorescent Detection Kits	Catalog No. K006-F1/F5
Superoxide Dismutase Activity Kit	Catalog No. K028-H1
Glutathione Colorimetric Detection Kit	Catalog No. K006-H1

Endothelin-1 (ET-1) Immunoassay (EIA) Kit

Catalog No: K045-H1 (1 Plate)

FEATURES

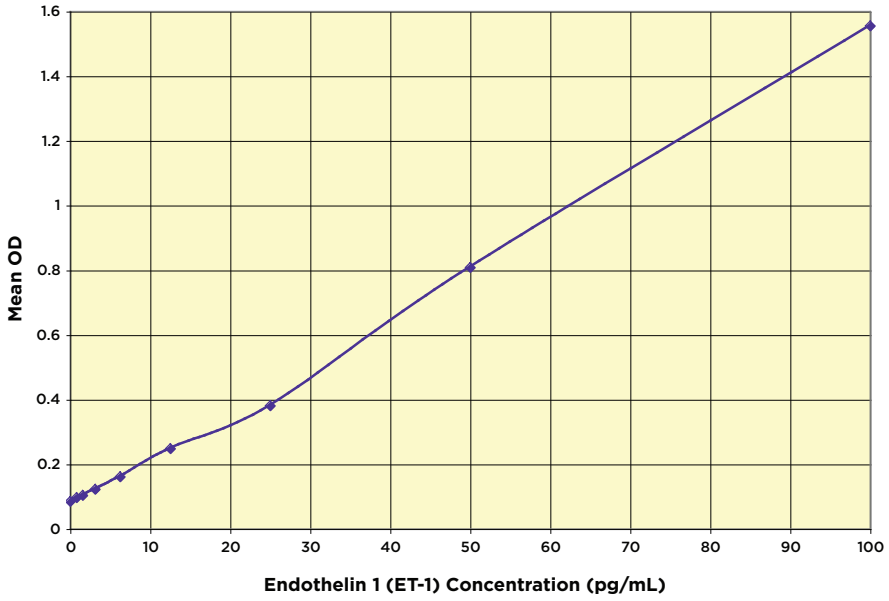
- Samples — Serum, plasma and TCM
- Fast — Three step 2.5 hour assay
- Samples/Kit — 39 in Duplicate
- Stability — Reagents Stable at 4°C

INTRODUCTION

Endothelin-1 (ET-1) together with endothelin-2 and endothelin-3 comprise the endothelin family of 21 amino acid peptides produced in various cells and tissues, especially endothelial and epithelial lineages. The endothelins are frequently associated with hypertension (vasoconstriction), however they mediate a variety of other effects through two G-protein coupled receptors, ET-A and ET-B. Endothelin-1 is expressed by endothelial cells as a precursor peptide (proET-1) that is first cleaved to bigET-1 and then to the mature 21-amino acid peptide. ET-1 expression in endothelial cells is regulated by complex signals that involve retinoic acid, leptin, prostaglandins, thrombin, TNF-ß, IL-1, hypoxia, and nitric oxide (NO). Endothelin-1 is a key mediator of vascular tone and renal homeostasis through antagonistic vasoactive effects. ET-1 is a vasoconstrictor, but it also induces the production of the potent vasodilator, nitric oxide (NO).

The DetectX® Endothelin-1 Immunoassay kit is designed to quantitate ET-1 in a variety of samples. The kit uses 2 monoclonal antibodies, one bound to the microtiter plate, the other directly labeled with peroxidase for detection of bound ET-1. The capture monoclonal binds ET-1. The detection monoclonal binds to the C-terminal end of ET-1. A synthetic ET-1 standard is provided. Standards or diluted samples are pipetted into a clear microtiter plate monoclonal antibody coated plate and incubated at RT for 1 hour. The plate is washed and peroxidase labeled monoclonal detection antibody is added. The plate is incubated for another hour at RT. The plate is washed and substrate is added. After a 30 minute incubation, the color reaction is stopped and the intensity read at 450 nm.

TYPICAL DATA



RELATED PRODUCTS

PGE_2 EIA, High Sensitivity and CLIA Kits	Catalog No. K018-H/HX/C
Cyclic AMP Direct EIA and CLIA Kits	Catalog No. K019-H/C
Cyclic GMP Direct EIA and CLIA Kits	Catalog No. K020-H/C
Phosphokinase A (PKA) Activity Kit	Catalog No. K027-H1
Nitric Oxide Detection Kit	Catalog No. K023-H1

Estrone-3-Sulfate (E1S) EIA Kits

Catalog No: K038-H1 (1 Plate) K038-H5 (5 Plate)

FEATURES

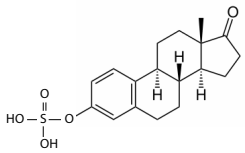
- Use — Non-Invasive Fecal Extracts, Serum, Plasma and TCM
- Sample Size — 2 µL serum or plasma needed
- Fecal/Urine — Validated in mice, rats, apes, cattle, deer, equids, felids, and ungulates
- Samples/Kit — 40 or 232 in Duplicate

MULTI SPECIES

INTRODUCTION

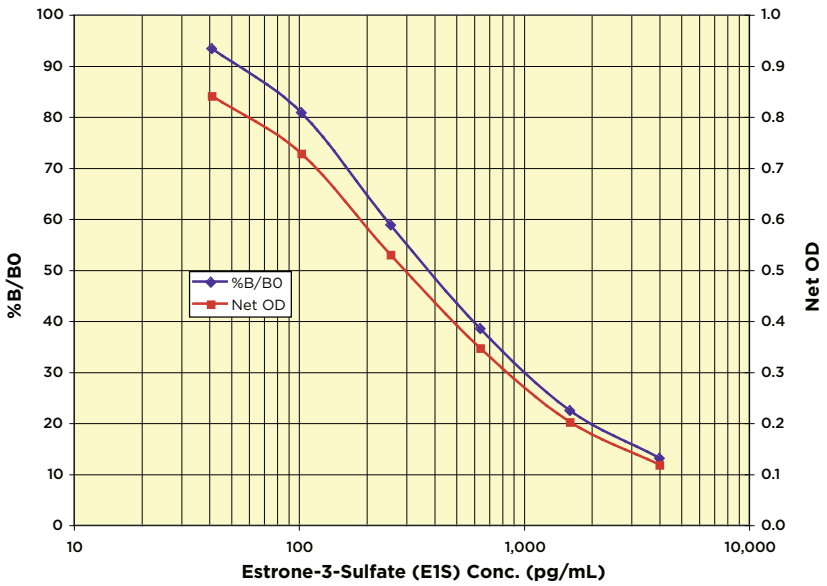
Estrone-3-sulfate (E1S) is synthesized in the fetal or cotyledonary portion of the placentome. Estrone sulfate, present in plasma in a higher concentration than either unconjugated estrone or estradiol in nonpregnant women and normal men, appears to originate almost entirely from a conjugation of estrone and converted estradiol in non-glandular tissues.Estrone sulfate is quantitatively the most important circulating estrogen. Breast tumors contain sulfatase activity and can convert estrone sulfate into estradiol. Cryptorchidism is a condition in which one or both testicles fail to descend into the scrotum, and it is considered to be a prevalent defect in horses. Bilaterally cryptorchid stallions do not produce viable spermatozoa but often exhibit normal secondary sexual characteristic.

Estrone-3-sulfate



The DetectX® Estrone-3-Sulfate (E1S) Immunoassay Kit uses a specifically generated antibody to measure E1S in a variety of matrices, including serum, plasma, urine, fecal extracts and tissue culture media samples. An E1S standard is provided for the assay. Standards or samples are pipetted into a coated microtiter plate. A E1S-peroxidase conjugate is added to the wells. The binding reaction is initiated by the addition of a rabbit polyclonal antibody to E1S. After a 2 hour incubation the plate is washed and substrate is added. The substrate reacts with the bound corticosterone-peroxidase conjugate. The substrate reacts with the bound E1S-peroxidase conjugate and the color is measured at 450 nm.

TYPICAL DATA



MOST SENSITIVE

RELATED PRODUCTS

Cortisol EIA Kits	Catalog No. K003-H1/H5
Cortisone CLIA Kits	Catalog No. K017-C1/C5
Estrone EIA Kits	Catalog No. K031-H1/H5
Estrone-3-Glucuronide EIA Kits	Catalog No. K036-H1/H5
Estradiol EIA Kits	Catalog No. K030-H1/H5

DetectX®

Ferric Reducing Ability of Plasma (FRAP™) Detection Kit

Catalog No: K043-H1 (2 Plate) **Patent Protected**

FEATURES

- Use — Quantitation of anti-oxidant status or ability
- Samples — Serum, plasma, urine, food, cosmetics, additives
- Samples/Kit — 88 in Duplicate
- Stability — All Liquid Reagents Stable at 4°C

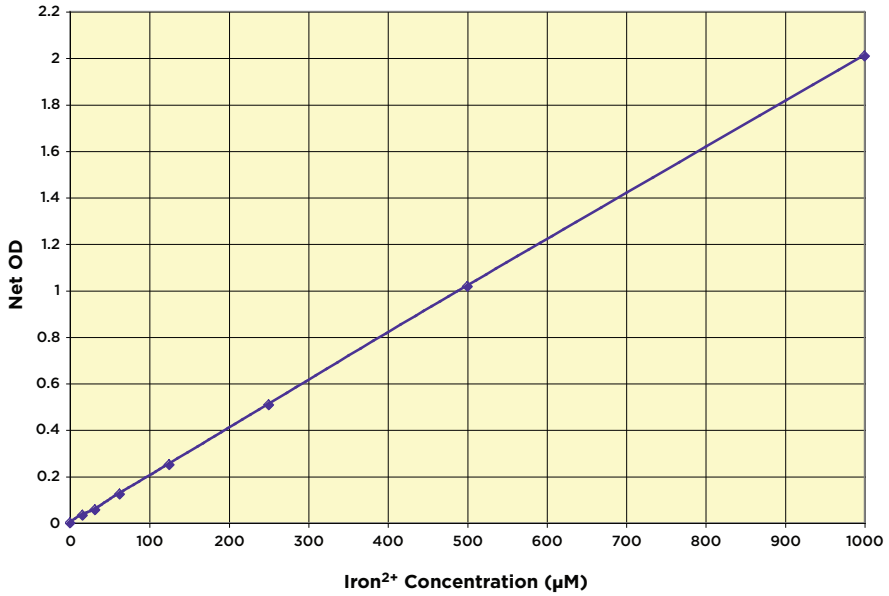
MULTI SPECIES

INTRODUCTION

Potentially harmful reactive oxygen species (ROS) are produced as a consequence of normal aerobic metabolism. These "free radicals" (FR) are usually removed or inactivated in vivo by a team of antioxidants. They are chemically stable atoms and molecules, which have one (or rarely more) free electron/electrons in the electron envelope. Almost all biomolecules, but mainly biomembranes, proteins and nucleic acids, may be attacked by reactive free radicals. Free radicals are responsible for many pathological processes, or they can be generated as the result of the pathological stage and cause important secondary damage to biological systems and cells. Connections between free radicals and some serious diseases, including Parkinson´s and Alzheimer´s disease, atherosclerosis, heart attacks, and chronic fatigue syndrome, have been demonstrated. However, short-term oxidative stress, the unbalance between the formation and scavenging of the reactive oxygen species, may be important in the prevention of aging due to triggering of the process known as mitohormesis. On the average, 65 – 70% of the population is excessively impacted by oxidative stress caused by FRs.

The DetectX® Ferric Reducing Ability of Plasma (FRAP™) Assay Kit is designed to quantitatively measure antioxidant status in a variety of samples. The assay measures the antioxidant ability from all species. A ferrous chloride standard is provided to generate a standard curve for the assay and all samples should be read off of the standard curve. An ascorbic acid control is also supplied. Samples are diluted in the provided Assay Buffer and added to the wells. The FRAP Solution is made by mixing Assay Buffer with Reagents A and B. The FRAP Solution is added to all wells and the plate incubated at room temperature. Antioxidant power in the samples reacts with the FRAP Solution to generate a blue colored product which is read at 560 nm.

TYPICAL DATA



RELATED PRODUCTS

Hydrogen Peroxide Fluorescent Detection Kit	Catalog No. K034-F1
Glutathione Fluorescent Detection Kits	Catalog No. K006-F1/F5
Superoxide Dismutase Activity Kit	Catalog No. K028-H1
Glutathione Colorimetric Detection Kit	Catalog No. K006-H1

Galactose Colorimetric Detection Kit

Catalog No: K042-H1 (2 Plate)

FEATURES

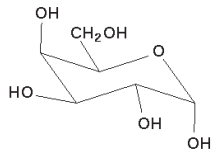
- Use — Measurement of Galactose
- Sample Type — Serum, Plasma or TCM
- Samples/Kit — 89 Samples in Duplicate
- Stability — All Liquid Reagents Stable at 4°C
- Performance — 0.781-25 mg/dL in 30 minutes

MULTI SPECIES

INTRODUCTION

Galactose is a hexose sugar that differs from glucose only by the configuration of the hydroxyl group at the carbon-4 position. Present as an anomeric mixture of α-D-galactose and ß-D-galactose, this monosaccharide exists abundantly in milk, dairy products and many other food types such as fruits and vegetables. Absorption of galactose in humans is mediated by the Na^+/glucose co-transporters SGLT1 and SGLT2 from food across the brush border membrane of the proximal jejunum and renal epithelium. Other sources of galactose include endogenous production and natural turnover of glycolipids and glycoproteins. Adult humans can produce up to 2 grams of galactose per day.

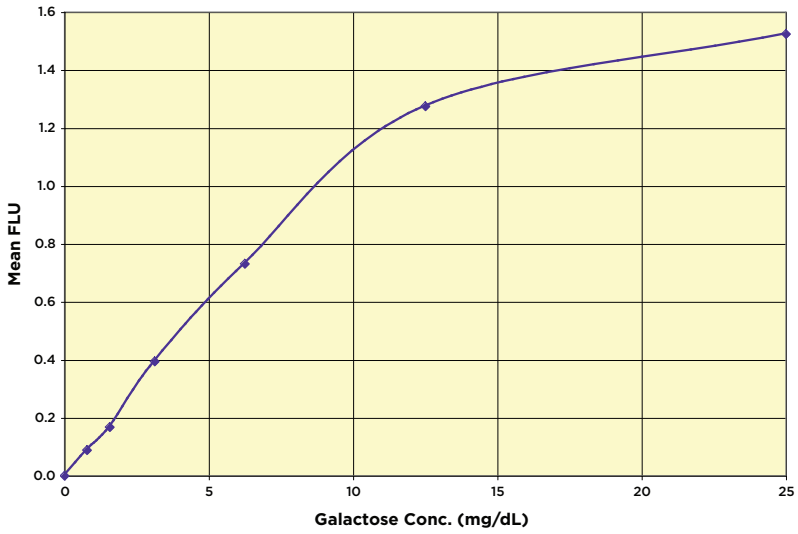
Galactose



The DetectX® Galactose Colorimetric Detection Kit is designed to quantitatively measure galactose in a variety of samples. A D-(+)-galactose standard is provided to generate a standard curve for the assay and all samples should be read off the standard curve. Samples are mixed with the Colorimetric Substrate and horseradish peroxidase and the reaction initiated by addition of galactose oxidase. The reaction is incubated at room temperature for 30 minutes. The galactose oxidase reacts with galactose to produce hydrogen peroxide which, in the presence of HRP, reacts with the Colorimetric Substrate to convert the colorless substrate into a pink-colored product. The pink product is read at 560 nm. Increasing levels of galactose cause a linear increase in color.

TYPICAL DATA

MOST SENSITIVE



RELATED PRODUCTS

Serum Creatinine Detection Kits	Catalog No. KB02-H1/H2
Urinary Retinol Binding Protein EIA Kit	Catalog No. KU04-H1
Hemoglobin Dual Range Detection Kit	Catalog No. K013-H1
Urea Nitrogen (BUN) Detection Kit	Catalog No. K024-H1

DetectX®

Glucose Fluorescent and Colorimetric Detection Kits

Colorimetric Catalog No: K039-H1 (2 Plate)
Fluorescent Catalog No: K039-F1 (2 Plate)

FEATURES

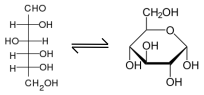
- Use — Measure Glucose concentration in 30 minutes
- Sample Type — Serum, Plasma, Urine, CSF or lysates
- Samples/Kit — 88 in Duplicate
- Sample Size — Measure Glucose on 1 µL Serum or Plasma
- Stability — All Liquid Reagents Stable at 4°C

MULTI SPECIES

INTRODUCTION

For all biological and molecular events and for multiple cellular functions, energy is essential. Energy is available in the form of ATP (adenosine triphosphate), most of which is generated through aerobic cellular respiration of carbohydrate and glucose, the major source of biological free energy in higher organisms. Reduced energy levels threaten cellular homeostasis and integrity. Impaired energy metabolism may trigger pro-apoptotic signaling (programmed cell death), oxidative damage, excitotoxicity and impede mitochondrial DNA repair.

Glucose

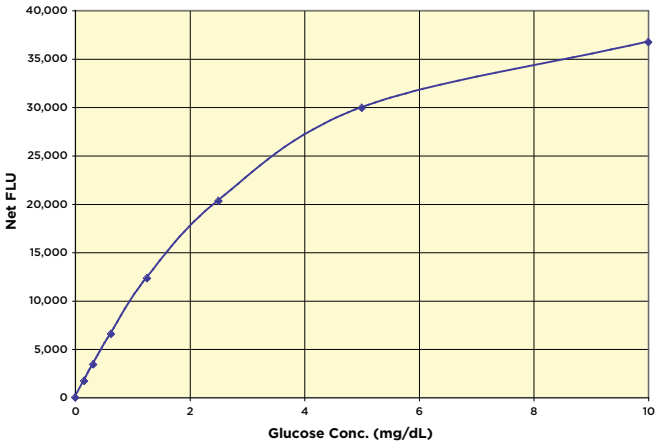


The DetectX® Glucose Colorimetric and Fluorescent Detection Kits are designed to quantitatively measure glucose in a variety of samples. Only µL amounts of serum or plasma are needed. A ß-D-glucose standard is provided to generate a standard curve for the assay and all samples should be read off the standard curve. Samples are mixed with either the Colorimetric or Fluorescent Substrate and horseradish peroxidase and the reaction initiated by addition of glucose oxidase. The reaction is incubated at room temperature for 30 minutes. The glucose oxidase reacts with glucose to produce hydrogen peroxide which, in the presence of HRP, reacts with the Colorimetric or Fluorescent Substrate to convert the substrate into a colored or fluorescent product. Increasing levels of glucose cause a linear increase in product formation which is read either in a colorimetric or fluorescent plate reader.

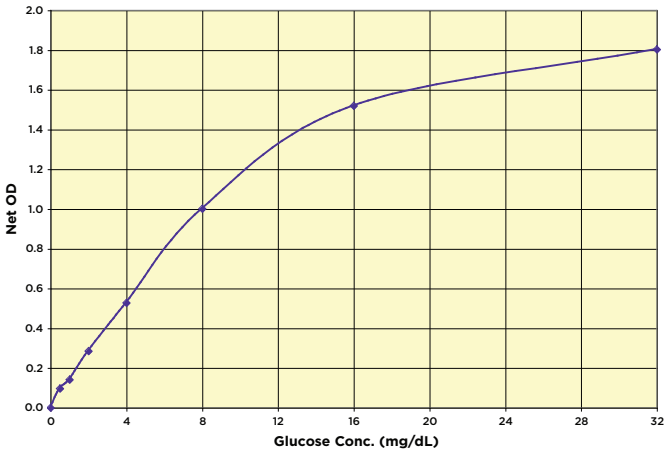
MOST SENSITIVE

TYPICAL DATA

Fluorescent Standard Curve



Colorimetric Standard Curve



RELATED PRODUCTS

Serum Creatinine Detection Kits	Catalog No. KB02-H1/H2
Urinary Retinol Binding Protein EIA Kit	Catalog No. KU04-H1
Hemoglobin Dual Range Detection Kit	Catalog No. K013-H1
Urea Nitrogen (BUN) Detection Kit	Catalog No. K024-H1

Hydrogen Peroxide (H_2O_2) Fluorescent and Colorimetric Detection Kits

Colorimetric Catalog No: K034-H1 (2 Plate)
Fluorescent Catalog No: K034-F1 (2 Plate)

FEATURES

MULTI SPECIES

- Sample — Urine, Buffer, TCM
- Rapid — 15 Minutes
- Sensitive — < 2 pmole (65 pg) H_2O_2
- Samples/Kit — Fluorescent: 88 in Duplicate — Colorimetric: 89 in Duplicate

INTRODUCTION

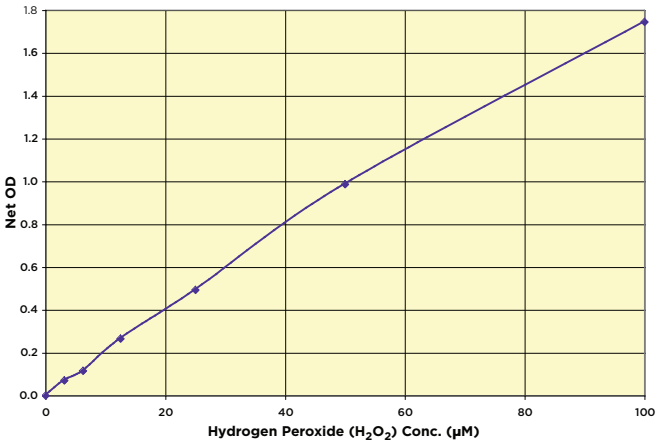
In biological systems incomplete reduction of O_2 during respiration produces superoxide anion ($O_2^{-}\cdot$), which is spontaneously or enzymatically dismutated by superoxide dismutase to H_2O_2. Many cells produce low levels of $O_2^{-}\cdot$ and H_2O_2 in response to a variety of extracellular stimuli, suchas cytokines (TGF-ß1, TNF-α, and various interleukins), peptide growth factors (PDGF; EGF, VEGF, bFGF, and insulin), the agonists of heterotrimeric G protein–coupled receptors (GPCR) such as angiotensin II, thrombin, lysophosphatidic acid, sphingosine 1-phosphate, histamine, and bradykinin, and by shear stress. The addition of exogenous H_2O_2 or the intracellular production in response to receptor stimulation affects the function of various proteins, including protein kinases, protein phosphatases, transcription factors, phospholipases, ion channels, and G proteins. In 1894, Fenton described the oxidation of tartaric acid by Fe^{2+} and H_2O_2. H_2O_2 and O_2 may participate in the production of singlet oxygen and peroxynitrite and the generation of these species may be concurrent with reactions involving iron, and under some circumstances they might be important contributors to H_2O_2 toxicity.

The DetectX® Hydrogen Peroxide Colorimetric and Fluorescent Detection Kits are designed to quantitatively measure H_2O_2 in a variety of samples. A hydrogen peroxide standard is provided to generate a standard curve for the assay. Samples are mixed with either the Colorimetric or Fluorescent Substrate and the reaction initiated by addition of horseradish peroxidase. The reaction is incubated at room temperature for 15 minutes. The HRP and H_2O_2 react with the Colorimetric or Fluorescent Substrate to convert the substrate into a colored or fluorescent product. Increasing levels of H_2O_2 cause a linear increase in product formation which is read either in a colorimetric or fluorescent plate reader.

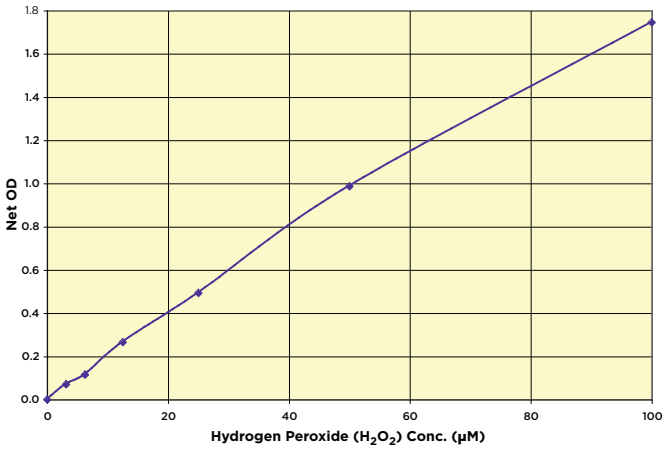
TYPICAL DATA

MOST SENSITIVE

Fluorescent Standard Curve



Colorimetric Standard Curve



RELATED PRODUCTS

Catalase Fluorescent Activity Kit	Catalog No. K033-F1
Superoxide Dismutase Activity Kit	Catalog No. K028-H1
Glutathione Fluorescent Detection Kits	Catalog No. K006-F1/F5
Glutathione Colorimetric Detection Kit	Catalog No. K006-H1
Urinary Creatinine Detection Kits	Catalog No. K002-H1/H5

DetectX®

Insulin Enzyme Immunoassay Kit

Catalog No: K046-H1 (1 Plate)

FEATURES

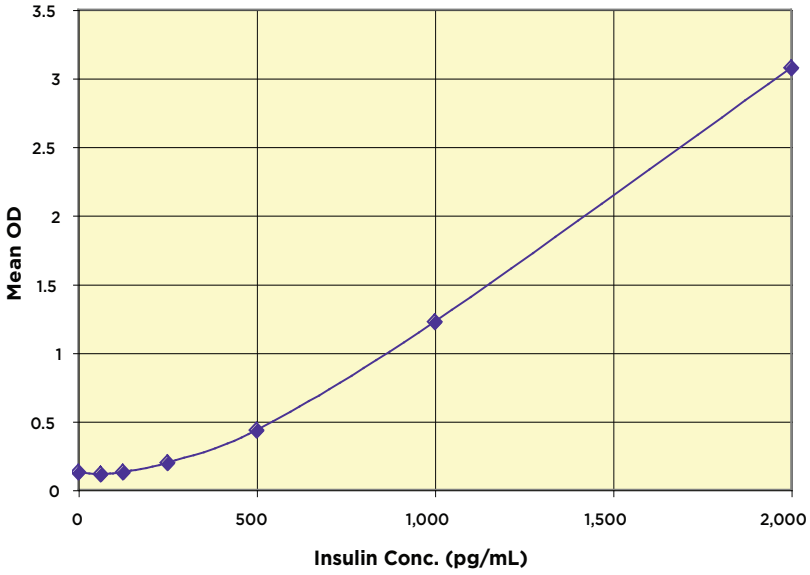
- Use — Measure Insulin in Serum and Plasma
- Rapid — 2 hour assay
- Samples/Kit — 41 in Duplicate
- Stability — Stable, Liquid Reagents at 4°C

INTRODUCTION

Insulin is a 51-residue peptide hormone that is produced in the pancreas by ß-cells of the islets of Langerhans. Insulin is involved in the regulation of carbohydrate, fat and protein metabolism. Lowered levels of insulin cause liver cells to convert glycogen back to glucose and secrete it into the blood. Insulin also has an effect on small vessel muscle tone, storage and release of (fat) triglycerides and cellular uptake of amino acids and electrolytes. Type 1 diabetes results when the ß-cells are destroyed and no longer producing insulin resulting in high glucose levels in the blood. Patients with type 1 diabetes depend on exogenous insulin for their survival because of an absolute deficiency of the hormone; patients with type 2 diabetes have either relatively low insulin production or insulin resistance or both.

The DetectX® Insulin Immunoassay Kit is designed to quantitatively measure insulin in a variety of samples. The kit uses 2 monoclonal antibodies, one bound to the microtiter plate, the other directly labeled with peroxidase for detection of bound insulin. The capture monoclonal binds insulin in samples or standards. The detection monoclonal binds to the bound insulin on the plate. A human insulin standard is provided. Standards or diluted samples are pipetted into a clear microtiter plate monoclonal antibody coated plate and incubated at RT for 1 hour. The plate is washed and peroxidase labeled monoclonal detection antibody is added. The plate is incubated for 30 minutes at RT. The plate is washed and substrate is added. After a 30 minute incubation, the color reaction is stopped and the intensity read at 450 nm.

TYPICAL DATA



RELATED PRODUCTS

Glucose Colorimetric and Fluorescent Detection Kits	Catalog No. K039-H1/F1
Galactose Colorimetric Detection Kit	Catalog No. K042-H1
Cyclic AMP EIA and CLIA Kits	Catalog No. K019-H/C
Cyclic GMP EIA and CLIA Kits	Catalog No. K020-H/C
Prostaglandin E_2 EIA and CLIA Kits	Catalog No. K018-H/HX/C

Mouse Osteopontin (OPN) Immunoassay (EIA) Kit

Catalog No: K047-H1 (1 Plate)

FEATURES

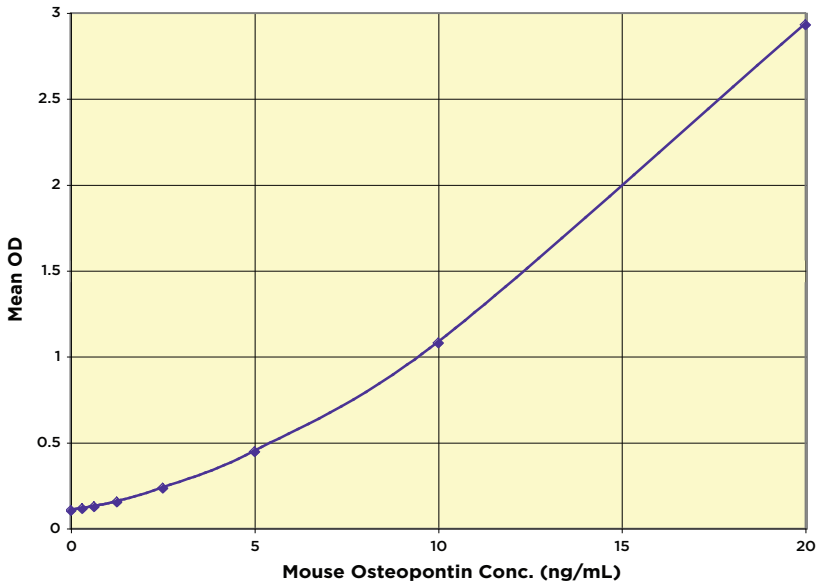
- Samples — Plasma, urine and milk
- Fast — Three step 2.5 hour assay
- Reproducible — Double monoclonal antibody assay for reproducibility and reliability
- Samples/Kit — 41 in Duplicate
- Stability — Reagents Stable at 4°C

INTRODUCTION

Osteopontin (OPN) was first described as a secreted, 60 kDa transformation-specific phosphoprotein in 1979. OPN has been shown to be significant in mineralized tissues, the vascular system, the immune system, kidney and in cancer. OPN is expressed by a single-copy gene as a 34 kDa nascent protein that is extensively modified by phosphorylation and glycosylation. OPN is highly conserved in different species and isolated OPNs have a similar number of amino acids, but the reported size of the secreted protein varies from 44 kDa to 75 kDa, due to differences in post-translational modifications (PTM). OPN has multiple functions as a key noncollagenous bone matrix protein, a regulator of cytokine production by macrophages, and in some cancers it has been shown to act as a survival factor. Studies *in vitro* and in animal models of cancer have clearly indicated that OPN can function to regulate tumor growth and progression.

The DetectX® mouse Osteopontin Immunoassay Kit is designed to quantitate OPN in plasma, milk and urine samples. The kit uses 2 monoclonal antibodies, one bound to the microtiter plate, the other directly labeled with peroxidase for detection of bound OPN. The capture monoclonal binds to the C-terminal end of mouse OPN. The detection monoclonal binds towards the N-terminal end of mouse OPN. A recombinant mouse OPN standard, fully modified with PTMs, is provided. Standards or diluted samples are pipetted into a clear microtiter plate coated with the monoclonal antibody to capture OPN and the plate is incubated at RT for 1 hour. The plate is washed and peroxidase labeled monoclonal detection antibody is added. The plate is incubated for another hour at RT. The plate is washed and substrate is added. After a short incubation, the color reaction is stopped and the intensity read at 450 nm.

TYPICAL DATA



RELATED PRODUCTS

Human Osteopontin Immunoassay Kit	Catalog No. K021-H1
Cyclic AMP Direct EIA and CLIA Kits	Catalog No. K019-H/C
Phosphokinase A (PKA) Activity Kit	Catalog No. K027-H1

DetectX®

Prolactin (PRL) Immunoassay (EIA) Kit

Catalog No: K040-H1 (1 Plate)

FEATURES

- Use — Measure Prolactin in Serum, plasma and TCM
- Sample — Tested for Human, Seal and Elephant Prolactin
- Samples/Kit — 40 in Duplicate
- Sensitive — Measures < 12 pg/mL hProlactin

MULTI SPECIES

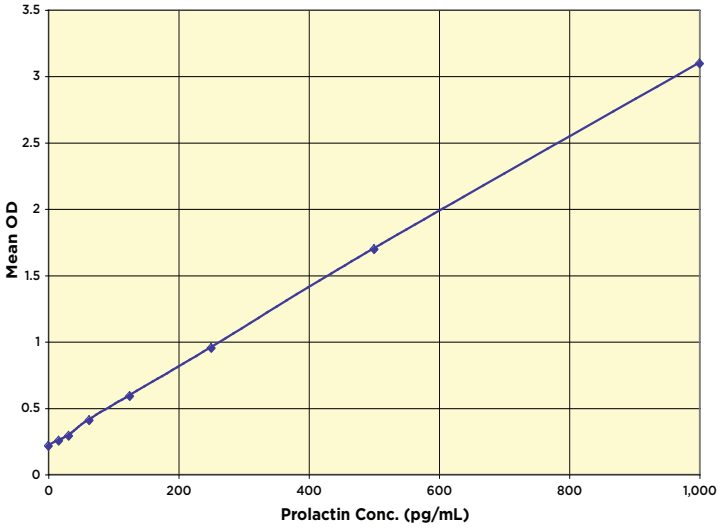
INTRODUCTION

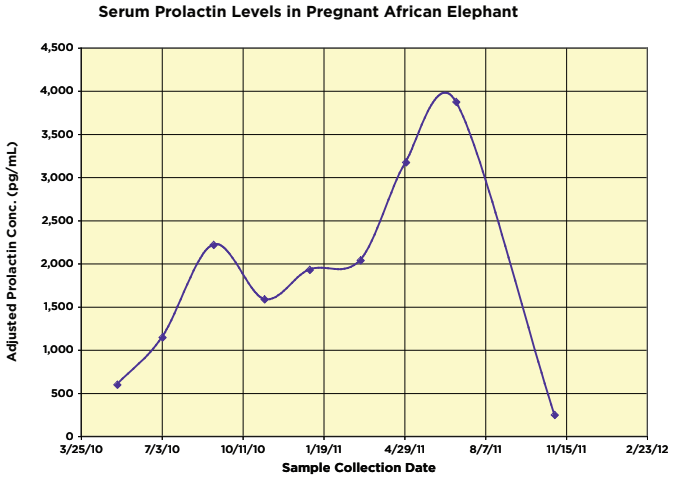
Prolactin (PRL) is a polypeptide hormone that is synthesized and secreted from specialized cells of the anterior pituitary gland. The hormone was given its name based on the fact that an extract of bovine pituitary gland would cause growth of the crop sac and stimulate the production of milk in pigeons or promote lactation in rabbit. However it is now appreciated that prolactin has over 300 separate biological activities. Prolactin has multiple roles in reproduction other than lactation, and it also plays multiple homeostatic roles in the organism. Furthermore, the synthesis and secretion of prolactin is not restricted to the anterior pituitary gland, but multiple other organs and tissues in the body have this capability.

The DetectX® Prolactin Kit is designed to quantitatively measure Prolactin present in biological samples and tissue culture media. The kit has been tested to measure human, seal and elephant prolactin. Other species have not been measured at this time but are being investigated. A human Prolactin standard is provided to generate a standard curve for the assay. Standards or diluted samples are pipetted into a clear microtiter plate coated with a monoclonal antibody to Prolactin. After a 60 minute incubation, the plate is washed and a peroxidase conjugated Prolactin polyclonal antibody is added. The plate is again incubated for 60 minutes and washed. Substrate is then added to the plate, which reacts with the bound Prolactin Antibody Conjugate. After a third incubation, the reaction is stopped and the intensity of the generated color is detected in a microtiter plate reader capable of measuring 450 nm wavelength.

MOST SENSITIVE

TYPICAL DATA





RELATED PRODUCTS

Estrone EIA Kits	Catalog No. K031-H1/H5
Estrone-3-Glucuronide EIA Kits	Catalog No. K036-H1/H5
Estradiol EIA Kits	Catalog No. K030-H1/H5
Progesterone EIA Kits	Catalog No. K025-H1/H5
Pregnandiol-3-Glucuronide (PDG) EIA Kits	Catalog No. K037-H1/H5

Monoclonal and Polyclonal Antibodies

FEATURES

- Uses WB, IP, IF, ChIP, EIA, ELISA

DESCRIPTION	HOST	USES	SIZE	CATALOG NO.
NEUROSCIENCE				
Acetylcholinesterase (AChE)	Mouse	WB, IP, ChIP	50 µg	A011-50UG
PLATE COATING/DETECTION				
Anti-Mouse IgG-Peroxidase, Aff.Pure	Goat	EIA, ELISA	250 µg	A012-250UG
Anti-Rabbit IgG-Peroxidase, Aff. Pure	Goat	EIA, ELISA	250 µg	A013-250UG

Enzyme Inhibitors and Activators

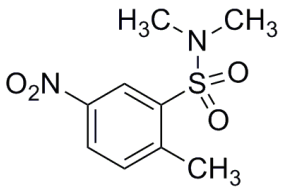
FEATURES

- Unique, high quality Enzyme Inhibitors and Activators

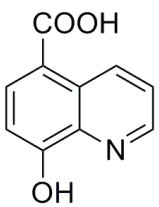
DESCRIPTION	USES	SIZE	CATALOG NO.
CANCER CHEMOPROTECTANT			
Xanthohumol	Inhibits expression of HIF-1a and VEGF	10/50 mg	P021-10/50MG
HISTONE DEMETHYLASE INHIBITOR			
IOX1	*Jumonji* HDM inhibitor	5/25 mg	P022-5/25MG
PHOSPHODIESTERASE INHIBITOR			
BRL-50481	Specific inhibitor of PDE7	10/50 mg	P020-10MG/50MG

STRUCTURES

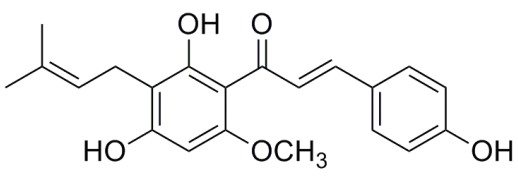
BRL-50481
Catalog No. P020



IOX1
Catalog No. P022



Xanthohumol
Catalog No. P021



OUR PHILOSOPHY IS TO BUILD THE HIGHEST QUALITY DETECTION AND IMMUNOASSAY PRODUCTS FOR IMPORTANT BIOMOLECULES

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