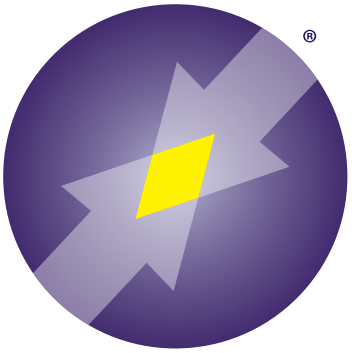

ARBOR ASSAYS™

Interactive Assay Solutions™

ANN ARBOR, MICHIGAN

2019 SUPPLEMENT

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To see our full product line please see our website at www.ArborAssays.com/products.

About Us

WHERE WE CAME FROM

Arbor Assays' founders started making kits 35 years ago in the FDA-regulated *in vitro* diagnostics industry. Carrying over the standard for high-quality, easy-to-use life sciences kits has been the foundation of Arbor Assays since its inception in 2007.

WHAT WE DO

- Novel detection and immunoassay kit development and manufacturing – for our own products and for the Contract Assay Services we provide
- Contract Chemical Synthesis Routes, Hapten Labeling and Antibody Generation
- Specialized Sample Testing Services
- Every kit we sell we make from scratch in Ann Arbor

How to Order

Online: www.ArborAssays.com/order-form

Phone: Call **734-677-1774** or Toll Free: **855-677-1774**. Monday-Friday 8:30 am to 5:30 pm, EST.

Fax: Send faxes to 734-677-6860.

E-mail: Send E-mail orders to Orders@ArborAssays.com

Distributors: Check our website at www.ArborAssays.com/distributors for a list of distributors.

Mail: Arbor Assays Inc., Sales Order Entry
1514 Eisenhower Place, Ann Arbor, MI 48108-3284, USA

2’,3’-Cyclic GAMP Direct EIA Kits

Catalog No: K067-H1 (1 Plate) K067-H5 (5 Plate)

FEATURES

- Use — Measure 2’,3’-cGAMP in Tissues and Cells
- Sample — Cell Lysates, Tissue Extracts, TCM
- Samples/Kit — 39 or 231 in Duplicate
- Sensitivity — 0.08 pmol/mL, 4 fmol/well
- Stability — Liquid 4°C Stable Reagents

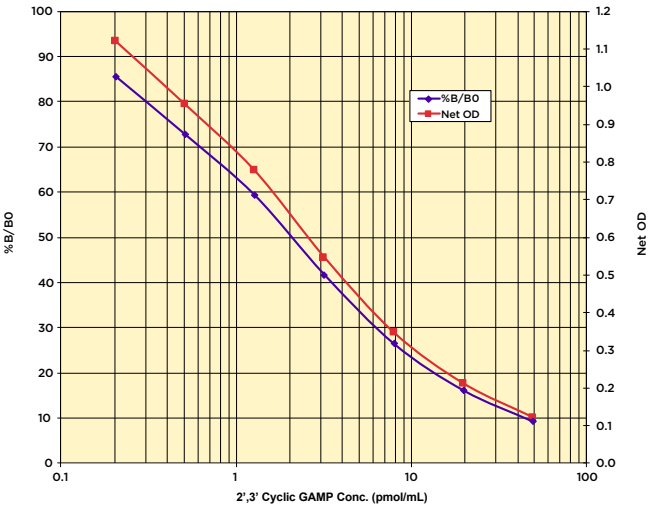
MULTI SPECIES

SCIENTIFIC RELEVANCE

2’,3’-Cyclic guanosine monophosphate–adenosine monophosphate (cyclic GMP-AMP, cGAMP, cyclic [G(2’,5’)pA(3’,5’)p]) was the first cyclic di-nucleotide found in metazoa. 2’,3’-cGAMP is also referred to as “noncanonical“ cGAMP due to the presence of the atypical 2’-5’ phosphodiester linkage between the guanosine and the adenosine. 2’,3’-Cyclic GAMP is a novel second messenger in innate immunity that regulates type I interferon (IFN) production. Produced in mammalian cells by cGAS (cGAMP synthase) in response to double-stranded DNA in the cytoplasm binding to cGAS, cGAMP binds to the stimulator of interferon genes (STING). Subsequently STING induces the TBK1-IRF3-dependent production of IFN-β.

OUR ASSAYS

The DetectX® Direct 2’,3’-Cyclic GAMP (cGAMP) EIA Kits are designed to quantitatively measure 2’,3’-cGAMP present in lysed cells and tissue, EDTA plasma, urine, saliva and tissue culture media samples. The kit is unique in that all samples and standards are diluted into an acidic Sample Diluent for 2’,3’-cGAMP measurement. Acidified samples of 2’,3’-cGAMP are stable and endogenous phosphodiesterases are inactivated in the Sample Diluent. A 2’,3’-cGAMP standard is provided. A neutralizing Plate Primer solution is added to the coated microtiter plate and standards or diluted samples are pipetted into the primed wells. A 2’,3’-cGAMP-peroxidase conjugate is added and the binding reaction is initiated by the addition of a rabbit polyclonal antibody to 2’,3’-cGAMP. After a 2 hour incubation, the plate is washed and substrate is added. The substrate reacts with the bound 2’,3’-cGAMP-peroxidase conjugate and after the reaction is stopped, the intensity of the generated color is detected at 450 nm.



20-Hydroxyecdysone EIA Kits

Catalog No: K066-H1 (1 Plate) K066-H5 (5 Plate)

FEATURES

- Sample Type — Measure 20-Hydroxyecdysone in Arthropods and Plants
- Sample — Tissue Extracts
- Samples/Kit — 39 or 231 in Duplicate
- Stability — Liquid 4°C Stable Reagents

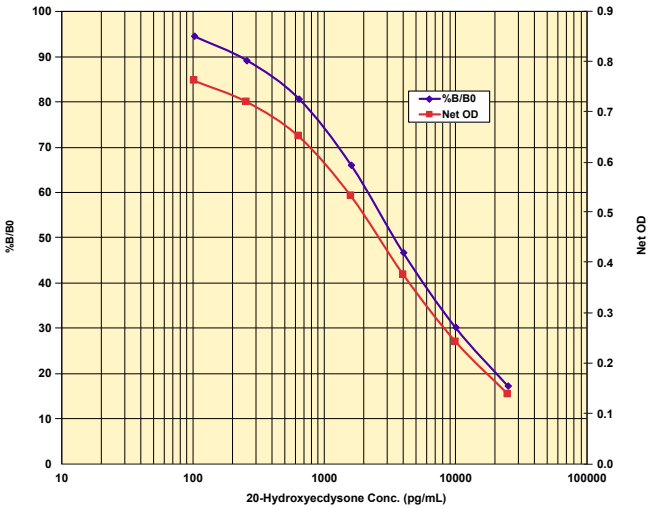
MULTI SPECIES

SCIENTIFIC RELEVANCE

The first insect molting hormone, Ecdysone, was isolated from a silkworm pupae in 1954. Later in 1996, 20-Hydroxyecdysone was identified and recognized as a derivative of ecdysone. Initially, the name ecdysone was given to these compounds since it was known to regulate the decay of old skin/shell in arthropods. Later they were identified as a group of steroid hormones that regulate metamorphosis, cell death, reproduction in arthropods, and also as a widely distributed steroid in plant species, spanning around one million species all together. Of the many steroids in the ecdysteroid group, 20-hydroxyecdysone appears to be the most functionally active and widely distributed ecdysone in arthropods and plants. During metamorphosis, the level of 20-hydroxyecdysone in the insect body changes and activates signaling through an ecdysone receptor to mature the larval and/or chrysalis into an adult insect. The hormone in plants has gained interest because of its potential role in facilitating defense mechanisms against insects.

OUR ASSAYS

The DetectX® 20-Hydroxyecdysone (20E) EIA Kits are designed to quantitatively measure 20E present in extracted tissue samples from hemolymph, plants, or anthropods. A 20E standard is provided. Standards or diluted samples are pipetted into a clear microtiter plate coated with an antibody to capture rabbit antibodies. A 20E-peroxidase conjugate is added and the binding reaction is initiated by the addition of a polyclonal antibody to 20-hydroxyecdysone. After a 2 hour incubation the plate is washed and substrate is added. The substrate reacts with the bound 20E-peroxidase conjugate. After the reaction is stopped, the intensity of the generated color is detected at 450 nm.



Cyclic GMP Direct EIA Kits – IMPROVED SENSITIVITY

Catalog No: K065-H1 (1 Plate) K065-H5 (5 Plate)

FEATURES

- Use — Lyse, Stabilize, Measure cGMP in One Step
- Sample — Cell and Tissue Lysates, Urine, Plasma, Saliva and TCM
- Sensitivity — 0.09 pmol/mL, 4.6 fmol/well
- Samples/Kit — 38 or 230 in Duplicate
- Stability — Liquid 4˚C Stable Reagents

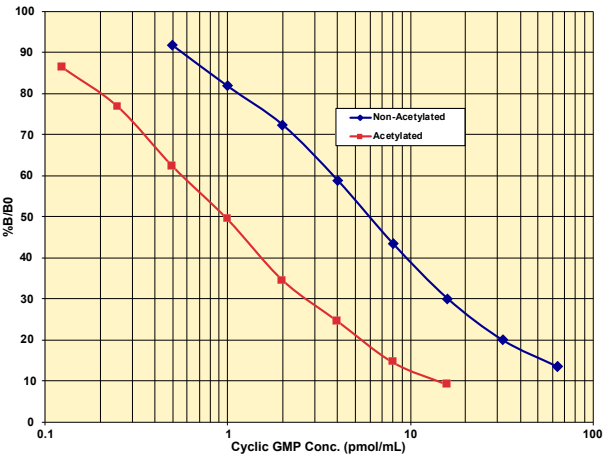
MULTI SPECIES

SCIENTIFIC RELEVANCE

Guanosine 3', 5'-cyclic monophosphate (cyclic GMP; cGMP) is a critical and multifunctional second messenger present at levels typically 10-100 fold lower than cAMP in most tissues. Intracellular cGMP is formed by the action of the enzyme guanylate cyclase (GC) on GTP and degraded through phosphodiesterase hydrolysis.

OUR ASSAYS

The DetectX® Direct Cyclic GMP (cGMP) EIA Kits are designed to directly measure cGMP present in lysed cells or tissue, plasma, urine, saliva and tissue culture media samples. The kits are unique in that all samples are diluted into an acidic Sample Diluent for cGMP measurement. The cGMP in the samples is stable and endogenous phosphodiesterases are inactivated in the Sample Diluent. A cGMP standard is provided. Plate Primer is added to the coated microtiter plate and samples, either with or without acetylation, are pipetted into the primed wells. A cGMP-peroxidase conjugate is added and the binding reaction is initiated by the addition of a mouse monoclonal antibody to cGMP. After incubation the plate is washed and substrate is added. The substrate reacts with the bound cGMP-peroxidase conjugate. After the reaction is stopped, the intensity of the generated color is detected at 450 nm.



Why Another Kit? Cyclic GMP levels are generally present at a full order of magnitude lower than those found for cyclic AMP. These differences can complicate efforts to measure cGMP in certain sample types. To overcome this obstacle, we've developed this improved sensitivity cyclic GMP assay to meet our goal of providing the easiest, most sensitive assays available for cyclic GMP. Arbor Assays' new, improved sensitivity cyclic GMP assay is **2-fold more sensitive than current assays** on the market and measures cGMP with femtomole sensitivity.

Hemoglobin High Sensitivity Colorimetric Detection Kits

Catalog No: K013-HX1 (2 Plate) K013-HX5 (10 Plate)

FEATURES

- Use — Measure Hemoglobin in 30 Minutes
- Sample — Serum and Plasma
- Sensitivity — < 0.06 µg/mL Hemoglobin
- Samples/Kit — 88 or 472 in Duplicate
- Stability — Liquid 4°C Stable Reagents

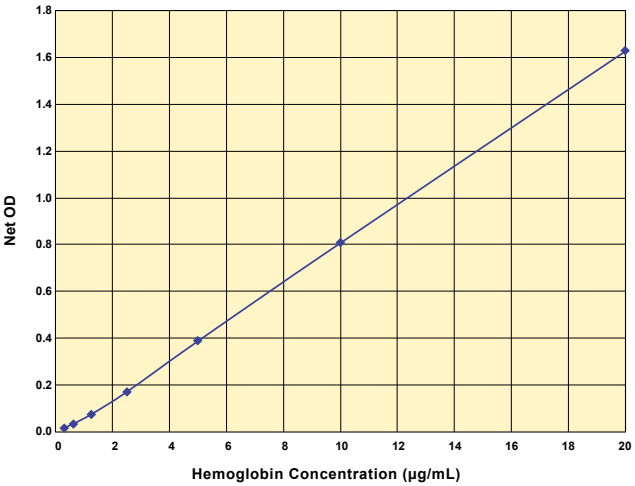
MULTI SPECIES

SCIENTIFIC RELEVANCE

Hemoglobin (Hgb) is an erythrocyte protein complex comprised of two sets of identical pairs of subunits, each of which bind an iron-prophyrin group commonly called heme. Generally containing two alpha or alpha-like globin chains, the remaining subunits may be beta, gamma, delta or epsilon, or in the case of infants, fetal hemoglobin that is replaced during the first year of life. Heme binds and releases oxygen or carbon dioxide in response to slight changes in local gas tension. Free oxygen or carbon dioxide bound by one heme group facilitates subsequent binding by the other heme groups in a given hemoglobin molecule. Subtle changes in pH also regulate hemoglobin affinity for free gases, resulting in a high level of hemostatic control.

OUR ASSAYS

The DetectX® Hemoglobin High Sensitivity Colorimetric Detection Kits use a single reaction solution that is stable at 4°C, is not light sensitive, and does not contain dangerous chemicals. All forms of hemoglobin react with Hemoglobin Detection Reagent and the generated color is measured photometrically at 450 nm. A human hemoglobin standard is provided to generate a standard curve for the assay.



Progesterone Metabolite EIA Kits

Catalog No: K068-H1 (1 Plate) K068-H5 (5 Plate)

FEATURES

- Use — Measure General Progesterone Metabolites, and Generate Reproductive Profiles
- Sample — Fecal Extracts, Urine
- Sensitivity — 51.2 pg/mL
- Sample/Kit — 40 or 232 in Duplicate
- Stability — Liquid 4°C Stable Reagents

MULTI SPECIES

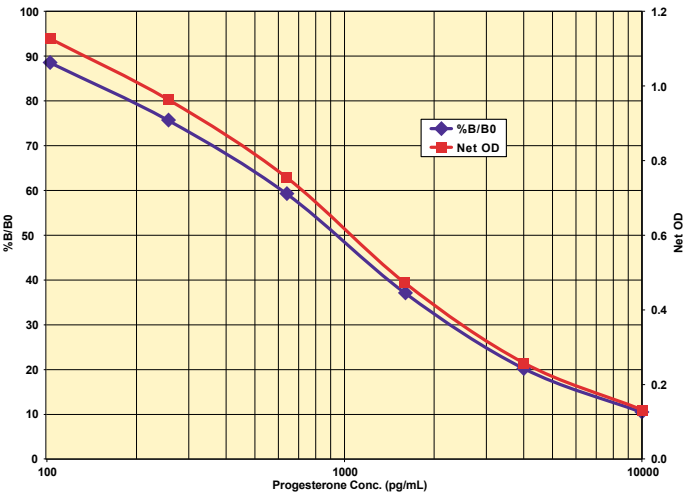
SCIENTIFIC RELEVANCE

Progesterone, $C_{21}H_{30}O_2$, also known as P4 (pregn-4-ene-3,20-dione) is a C-21 steroid hormone involved in the female menstrual cycle, gestation and embryogenesis of humans and other species. Progesterone belongs to a class of hormones called progestogens, and is the major naturally occurring human progestogen. Progesterone is an essential regulator of human female reproductive function in the uterus, ovary, mammary gland and brain. It also plays an important role in non-reproductive tissues such as the cardiovascular system, bone and the central nervous system.

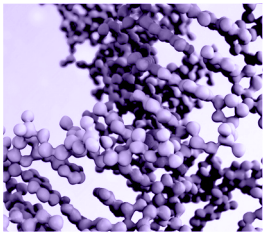
In different animal species progesterone can metabolize and excrete as a variety of general progesterone molecules. A few examples would be fecal 5-reduced progesterone (pregnane) metabolites, pregnanolones and hydroprogesterones. Measurement of these general progesterone molecules can provide vital data about endangered species to aid reproductive strategies.

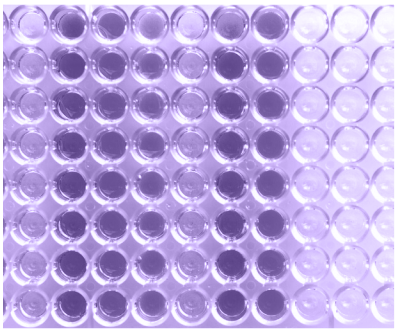
OUR ASSAYS

The DetectX® Progesterone Metabolites EIA Kits are designed to quantitatively measure progesterone metabolites present in fecal, urine, and other sample extracts. A progesterone standard is provided. Standards or diluted samples are pipetted into a clear microtiter plate coated with an antibody to capture rabbit antibodies. A progesterone-peroxidase conjugate is added and the binding reaction is initiated by the addition of a polyclonal antibody to progesterone metabolites. After a 1 hour incubation, the plate is washed and substrate is added. The substrate reacts with the bound progesterone-peroxidase conjugate. After the reaction is stopped, the intensity of the generated color is detected at 450 nm.









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ANN ARBOR, MI 48108 | +1 (855) 677-1774
info@ArborAssays.com | www.ArborAssays.com