



- Progesterone is an essential regulator of female reproductive function and plays an important role in the cardiovascular system, bone and central nervous system.
- It plays an important role in brain function as a neurosteroid.
- PRA and PRB, two isoforms of the nuclear progesterone receptor, are expressed in a variety of normal breast tissue and in breast cancer cells.
- Progesterone is also a crucial metabolic intermediate in the production of other endogenous steroids, including sex hormones and corticosteroids.
- Analysis of progesterone and its metabolites is essential to investigate and better understand stress responses and reproductive status of study organisms.

#### DetectX® PROGESTERONE ELISA KITS (K025-H1/H5/H1W/H5W)



- **Measure** 11- and 3-hydroxyprogesterones in 2.5 Hours
- **Sensitivity:** 47.9 pg/mL
- **Sample types:** fecal extracts, urine and tissue culture media
- **Measure** up to 39 or 231 samples in duplicate
- 4°C stable liquid reagents

#### DetectX® PROGESTERONE METABOLITES ELISA KITS (K068-H1/H5)



- **Measure** general progesterone metabolites and generate reproductive profiles
- **Sensitivity:** 51.2 pg/mL
- **Sample types:** fecal extracts and urine
- **Measure** up to 40 or 232 samples in duplicate
- 4°C stable liquid reagents

#### RELATED DetectX® KITS

- 17-Hydroxyprogesterone ELISA Kits (K053-H1/H5)
- Aldosterone ELISA Kits (K052-H1/H5/C1/C5)
- Allopregnanolone ELISA Kits (K061-H1/H5)
- Corticosterone ELISA Kits (K014-H1/H5/H1W/H5WC1/C5)
- Cortisone ELISA Kits (K017-H1/H5/C1/C5)
- Cortisol ELISA Kits (K003-H1/H5/H1W/H5W)
- Estrone ELISA Kits (K031-H1/H5)
- Estrone-3-Glucuronide (E1G) ELISA Kits (K036-H1/H5)
- Estradiol ELISA Kits (K030-H1/H5)
- Estradiol Serum ELISA Kits (KB30-H1/H5)
- Levonorgestrel (LNG) ELISA Kits (K058-H1/H5)
- Oxytocin ELISA Kits (K048-H1/H5/H1W/H5W)
- PGFM ELISA Kits (K022-H1/H5)
- Prolactin ELISA Kit (K040-H1)
- Testosterone ELISA Kits (K032-H1/H5/H1W/H5W)
- Check our website for **MORE** related kits!

## DetectX® PROGESTERONE ELISA KITS (K025-H1/H5)

The DetectX® Progesterone ELISA Kit, K025-H, is designed to quantitatively measure Progesterone present in non-invasive samples such as extracted dried fecal samples, urine and tissue culture media samples. It detects 3 $\beta$ , 3 $\alpha$  and 11 $\alpha$ -hydroxyprogesterone with a higher cross reactivity. The cross-reactivity profile of the progesterone mouse monoclonal antibody that goes into the K025-H kit is shown in the table to the right. K025 has been widely used to assess reproduction.

Progesterone	100%
3 $\beta$ -Hydroxyprogesterone	172%
3 $\alpha$ -Hydroxyprogesterone	188%
11 $\beta$ -Hydroxyprogesterone	2.7%
11 $\alpha$ -Hydroxyprogesterone	147%
5 $\alpha$ -Dihydroprogesterone	7.0%
Pregnenolone	5.9%
Corticosterone	<0.1%
Androstenedione	<0.1%

## DetectX® PROGESTERONE METABOLITES ELISA KITS (K068-H1/H5)

The DetectX® Progesterone Metabolites ELISA Kit, K068-H, was also developed for use in non-invasive sample types such as extracted fecal samples and urine. The rabbit polyclonal antibody used in this kit cross reacts with metabolites listed on the table. It detects 5 $\alpha$ -DHP among others listed. In different animal species, progesterone can be metabolized and excreted as a variety of general progesterone molecules. A few examples would be:

- fecal 5-reduced progesterone (pregnane) metabolites
- pregnanolones
- hydroprogesterones

Measurement of these general progesterone molecules can provide vital data about endangered species to aid reproductive strategies. A group-specific antibody with a high cross-reactivity to most progesterone metabolites would provide strong evidence for an ongoing reproductive cycle.

Progesterone	100%
5 $\alpha$ -Dihydroprogesterone	56.70%
5 $\beta$ -Dihydroprogesterone	61.90%
Epiallopregnanolone/ 5 $\alpha$ -pregnan-3 $\beta$ -ol-20-one	38.30%
Pregnanolone/5 $\beta$ --pregnan-3 $\alpha$ -ol-20-one	41.20%
Allopregnanolone	27.30%
Pregnenolone	17.60%
Epipregnanolone	10.20%
Allopregnanediol	0.29%
11 $\alpha$ -Hydroxyprogesterone	4.90%
17-Hydroxyprogesterone	5.70%
20 $\alpha$ -Hydroxyprogesterone	0.34%
Testosterone	0.18%
Androstenedione	<0.1%
Corticosterone	<0.1%
17 $\beta$ -Estradiol	<0.1%