

20-HYDROXYECDYSONE ELISA kit

20-HYDROXYECDYSONE ELISA kit #A05120

- Measurement of 20-hydroxyecdysone in insects, arthropods, extracts, and other biological samples
- 34-sample assay in duplicate
- Measurement of 20E levels down to 31 pg/mL



Ecdysone is a steroid hormone of the ecdysteroid family which is found in animals (vertebrates and invertebrates) and in plants. There are different polyhydroxylated forms of ecdysone, the major one being the 20-Hydroxyecdysone (20E). 20E is known as the **insect molting** hormone. Indeed, in interaction with the juvenile hormone (JH), 20E plays a key role in the growth, development, metamorphosis, and reproduction of **Arthropods** (i.e., invertebrates such as insects, crustaceans, arachnids, etc.).

Little is known about the function of ecdysteroids in vertebrates. There are several reports which indicate an effect of the phycoecdysteroid on muscle growth and fat loss in mammals. Some dietary supplements are marketed to enhance the physical performances of athletes, particularly bodybuilders.

Besides, researchers are currently studying the effect of 20E in the treatment of obesity and diabetes. Furthermore, there are ongoing investigations on the possible interest of 20E in the prevention and treatment of diseases such as osteoporosis and osteoarthritis.

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FOCUS ON THE ASSAY

This Enzyme Immunoassay (EIA) is based on the competition between unlabelled 20 Hydroxyecdysone (20E) and acetylcholinesterase (AChE) linked to 20E (tracer) for limited specific rabbit anti-20E antiserum sites.

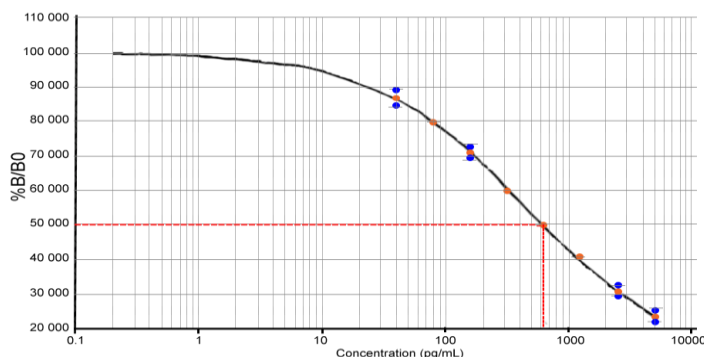
The complex rabbit antiserum-20E (free 20E or tracer) binds to the mouse monoclonal antirabbit antibody that is attached to the well. The plate is then washed, and Ellman's Reagent (enzymatic substrate for AChE and chromogen) is added to the wells.

The AChE tracer acts on Ellman's Reagent to form a yellow compound. The intensity of the color, determined by spectrophotometry, is proportional to the amount of tracer bound to the well and is inversely proportional to the amount of free 20E present in the well during the immunological incubation.

TECHNICAL DATA

- **Size:** 96 wells
- **Shelf life:** 1-year maximum after production
- **Shipping:** Dry ice
- **Tracer:** AcetylCholinesterase AChE
- **Sample volume:** 50µL
- **Standard curve range:** 39 – 5000 pg/mL
- **Stability:** store at -20°C
- **Specificity:**
 - 20-hydroxyecdysone: 100%
 - Ecdysone: 100%
 - Polyodine B: 70%
 - 2-deoxy-ecdysone: 63%
 - 2-deoxy-20-hydroxy-ecdysone: 88%

- **Media application:** Extraction with ethanol or methanol for biological samples like hemolymph, insect larvae...



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