

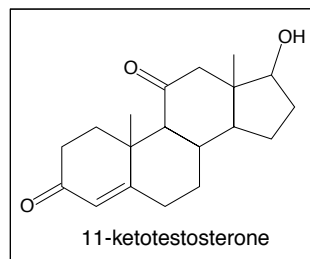
11-Ketotestosterone Enzyme Immunoassay Kit

Detection of the steroid hormone 11-ketotestosterone (11-KT), the male specific sex steroid in fish, has been successfully used for sex determination in a variety of fish species. Plasma levels of 11-KT are significantly higher in males than in females for fish in general. The steroid has been demonstrated to be a potent androgen in most fish species studied, and its plasma levels are known to correlate with the male gonadosomatic index with an increase during spermiation.



The quantitative 11-ketotestosterone EIA kit can be used in basic fish endocrinology as well as for investigations of endocrine disruption in all fish species where 11-KT is the main male sex hormone. Blood plasma samples can be analysed for 11-KT using this assay.

The analysis is based on a competitive binding assay where free 11-KT in the sample is competing with enzyme-labelled 11-KT (tracer) for binding to specific rabbit anti-11-KT



antibodies. The 11-KT antibody complex is immobilised on the surface of microtiter plates pre-coated with anti-rabbit IgG. The amount of enzyme-labelled 11-KT tracer bound to the wells is determined after addition of a non-coloured substrate, which upon reaction with the tracer enzyme acetylcholinesterase (AChE) is converted to a yellow product. The colour intensity is measured spectrophotometrically (between 405-420 nm) and is inversely proportional to the concentration of 11-KT in the sample. The assay is calibrated using a standard solution of 11-KT supplied with the kit.

The assay is highly sensitive and robust.

The working range of the 11-KT standard is broad, normally 4-500 pg/ml within 15%-80% binding, and the intra- and interassay coefficients of variation (%CV) are between 3 and 22% within the working range.

The 11-ketotestosterone EIA Kit is available in two sizes, with 96 and 480 wells (1 and 5 plates). The kit contains 11-ketotestosterone standard, antibody, tracer and reagents necessary for running the assay, as well as an instructive protocol describing details of the assay and data analysis.

