

CON-PRA-046

CONFIRMATORY METHOD

Metabolism of Anabolic steroids

• Context

Anabolic steroids are one of the most complex type of residues to monitor in food. This is due to two main factors, the first one being the number of compounds which fall under this definition and the second the metabolism of these molecules which presupposes the study of their biotransformation in the various species of farm animals prior to their monitoring.

• General objective(s)

Based on a practical example (nandolone in bovines), this module explains which analytical strategies can be applied in order to detect and identify the chemical structure of marker-metabolites of steroid administration.

• Pedagogical objectives

- ✓ Detect the appearance of a metabolite
- ✓ Know the basic rules of steroid fragmentation
- ✓ Interpret a mass spectrum in order to determine the chemical structure of a steroid metabolite

• Main items

- ✓ Experimental protocols, metabolite detection strategy, understanding of the rules of fragmentation, determination of the chemical structure.

• Pedagogical tools

- ✓ Slide show
- ✓ Software for the reprocessing of chromatographic and spectrometric data
- ✓ Interpretation of spectrometric data per group

• Duration

- ✓ 1 ½ hour

• Pre-requisite

- ✓ Chemical structure (understanding)
- ✓ Mass spectrometry (CON-THE-010, CON-THE-020 and CON-THE-030)