



**SENSITIVE
17 β ESTRADIOL**

- ESTR-US-CT

Sensitive 17 β ESTRADIOL

(Ref. ESTR-US-CT)

■ Clinical indications

Assessment of the puberty in young girls (clinical signs of an estrogen hypersecretion)

- Diagnosis of precocious activity of ovarian function
- Diagnosis of precocious puberty from isolated premature thelarche
- Monitoring of treatment with Gn RH analogues

Assessment of the menopause period

- Hormone replacement therapy should be considered when the estradiol level is low: Hormone replacement therapy follow-up
- Estradiol determination is valuable in case of menorrhagia (excessive estrogen production suspected)

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■ Clinical indications

Estrogen secreting tumors

- Adrenal tumor or gonadal tumor
- Follow-up of the endocrine treatment of post menopausal women with breast cancer

Fertility follow-up

- Amenorrhoea etiology
- Assisted Reproductive Technology treatment (ART) monitoring

Hyperestrogenism in men

- Gynecomastia
- Estrogen secreting tumors



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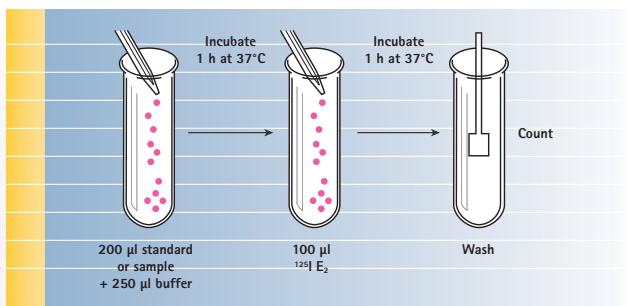
(Ref. ESTR-US-CT)

■ Principle of the test

Competition assay

- Rabbit anti estradiol antiserum coated on the bottom of the tubes
- ^{125}I Estradiol used as a tracer

■ Protocol

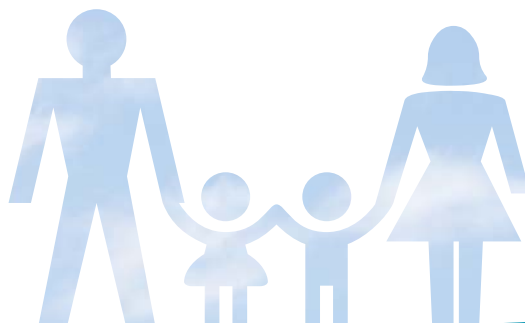


■ Characteristics

- Standardization: GC-MS
- Working range: 10 – 2000 pmol/L
- Sensitivity:

Detection limit	5 pmol/L
Functional sensitivity	10 pmol/L
- Specificity:

Cross reactivity with:	%
Ethinylestradiol	1.4
Estrone	0.97
Estriol	0.44
Estradiol-3-glucuronide, sodium salt	0.61
Estradiol-3-sulfate	0.02
Estradiol-17-glucuronide, sodium salt	0.25
Estradiol-17-valerate	0.16



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■ Expected values

Serum Estradiol concentration throughout the menstrual cycle

	Day from LH peak	Mean (pmol / L)	Range (pmol / L)
Follicular phase	- 8	150	105 - 217
	- 4	343	207-1000
Mid cycle	- 1	709	416-1399
Luteal phase	9	399	165-788

Serum Estradiol concentration in non fertile females

	Age (years)	Mean (pmol / L)	Range (pmol / L)
Post menopausal women	47-66	26	11-50
Pre pubertal girls	3-5	17	nd-36

nd = non detectable

Serum Estradiol concentration in men

	Mean (pmol / L)	Reference Interval
Male	117	34-226

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