

Product Specification Sheet

Estradiol antibody

Cat. # E211-M

Mouse Monoclonal Anti-Estradiol IgG

SIZE: 100 ug

Estradiol (E2 or 17β-estradiol) (also oestradiol) is a sex hormone. Estradiol is the predominant sex hormone present in females; however, it is present in males, albeit at lower levels, as well. It represents the major estrogen in humans. Estradiol has not only a critical impact on reproductive and sexual functioning, but also affects other organs including the bones. Estradiol, like other steroids, is derived from cholesterol. After side chain cleavage and utilizing the delta-5 pathway or the delta-4 pathway, androstenedione is the key intermediary. A fraction of the androstenedione is converted to testosterone, which in turn undergoes conversion to estradiol by an enzyme called aromatase. In an alternative pathway, androstenedione is "aromatized" to estrone, which is subsequently converted to estradiol.

During the reproductive years, most estradiol in women is produced by the granulosa cells of the ovaries by the aromatization of androstenedione (produced in the theca folliculi cells) to estrone, followed by conversion of estrone to estradiol by 17β-hydroxysteroid reductase. Smaller amounts of estradiol are also produced by the adrenal cortex, and (in men), by the testes.

Estradiol is produced not only in the gonads: In both sexes, precursor hormones, to be specific testosterone, are converted by aromatization to estradiol. In particular, fat cells are active to convert precursors to estradiol, and will continue to do so even after menopause. Estradiol is also produced in the brain and in arterial walls.

Source of Antigen and Antibodies

Antigen	Estradiol-6-CMO-BSA
Ab Host/type	Mouse, monoclonal IgG2ak (#E211-M) supplied purified IgG in PBS, ph 7.4, 0.05% azide at 1 mg/ml or see lot sp. concn
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40120 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.05% azide

Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder

Recommended Usage

Antibody is suitable for ELISA or RIA. Antibody dilution should be tested for a given application.

Specificity & Cross-reactivity

Antibody was tested against the following related steroids.

17-B-Estradiol	100%	Cortisone	<0.005%
Estriol	2.3%	Cortisol	<0.005%
Estrone	0.17%	Progesterone	<0.005%
Testosterone	0.01%	Corticosterone	<0.005%
Androstenedione	<0.005%		

References: Pentikainer V (1006) J Clin Endocrinology & Metabolism 85:2057-67; Sharpe RM (1993) Lancet 29, 341

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
1850	Human Cortisol ELISA Kit, 96 tests, Quantitative
1855	Human Progesterone (saliva) ELISA Kit,
1860	Human Progesterone ELISA Kit, 96 tests,
1865	Human Pregnenolone ELISA Kit, 96 tests,
1870	Human 17 alpha Hydroxyprogesterone ELISA,
1875	Human Aldosterone ELISA Kit, 96 tests,
1880	Human Testosterone ELISA Kit, 96 tests,
1885	Human free Testosterone ELISA Kit, 96 tests,
1905	Human 5a-Androstane-3a, 17b-diol Glucuronide
1910	Human Androstenedione ELISA Kit, 96 tests,
1915	Human Androstenedione (saliva) ELISA Kit, 96
1920	Human Estradiol ELISA Kit, 96 tests,
1925	Human Estrone ELISA Kit, 96 tests, Quantitative
1930	Human Estriol ELISA Kit, 96 tests, Quantitative
1940	Human Dihydrotestosterone (DHT) ELISA Kit,
1950	Human DHEA-sulphate (DHEA-S) ELISA Kit, 96

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