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| Clone | LHa/756 |
| Source | Mouse Monoclonal |
| Cat #  | PM217-6ml RTUPM217-3ml RTUCM217-0.1ml ConcCM217-0.5ml Conc HAM217-3ml RTUHAM217-6ml RTU |
| Regulatory Status | IVD |

LH alpha- Luteinizing Hormone (LHa/756)

**Intended Use:**

This antibody is intended for use to qualitatively identify LH alpha Luteinizing Hormone antigen by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient’s clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

**Summary and Explanation:**

This MAb reacts with a protein of ~13kDa, identified as alpha sub-unit of Luteinizing Hormone (LH). Its structure is similar to the other glycoproteins, follicle-stimulating hormone (FSH), thyroid-stimulating hormone (TSH), and human chorionic gonadotropin (hCG). The protein dimer contains 2 polypeptide units, labeled alpha and beta subunits that are connected by two bridges. The alpha subunits of LH, FSH, TSH, and hCG are identical, and contain 92 amino acids. The beta subunits vary. LH has a beta subunit of 121 amino acids (LHB) that confers its specific biologic action and is responsible for interaction with the LH receptor. This beta subunit contains the same amino acids in sequence as the beta subunit of hCG and both stimulate the same receptor; however, the hCG beta subunit contains an additional 24 amino acids and the hormones differ in the composition of their sugar moieties. LH is synthesized and secreted by gonadotrophs in the anterior lobe of the pituitary gland. In concert with the other pituitary gonadotropin follicle-stimulating hormone (FSH), it is necessary for proper reproductive function. In the female, an acute rise of LH levels triggers ovulation. In the male, where LH has also been called Interstitial Cell-Stimulating Hormone (ICSH), it stimulates Leydig cell production of testosterone. LH is a useful marker in classification of pituitary tumors and the study of pituitary disease.

**Immunogen:** Recombinant hLH alpha protein.

**Isotype:** Mouse/IgG1, kappa

**Reagent Provided:
 Concentrated format:** Antibody to LH alpha is diluted in antibody diluent, with 1% bovine serum
 albumin (BSA) and 0.05% sodium azide (NaN3). Recommended dilutions:
 1:100.The antibody dilution and protocol may vary depending on the specimen
 preparation and specific application. Optimal conditions should be
 determined by individual laboratory.

**Pre-diluted format:** PathnSitu ready to use antibodies are pre tittered to optimal staining
 conditions. Further dilution may loose the activity and may yield to sub
 optimal staining.

**Storage Recommendations:** Store at 2°-8°C. Do not use after expiration date provided on the vial.

**Staining Recommendations:
 Antigen Retrieval Solution:** Use **Tris-EDTA Buffer** **(PathnSitu Cat # PS009)** as antigen retrieval
 solution Heat Retrieval Method: Retrieve sections under steam pressure
 for 15 min using PathnSitu’s MERS (Multi Epitope Retrieval System) then
 allow solution to cool for 10 minutes then transfer tissue sections/slides to
 distilled water.

**Primary Antibody:**  Cover the tissue sections with primary antibody and incubate for 30
 min at room temperature when used PathnSitu PolyExcel Detection
 System.

**Detection System:** Refer to PathnSitu PolyExcel detection system protocol or manufacturer’s detection kit staining protocol when used other vendor detection system.

**Cellular Localization:** Cytoplasm, secreted

**Positive Control:** Pituitary

**Troubleshooting:** Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at 040-2701 5544 or techsupport@pathnsitu.com.

**Limitations and Warranty:** There are no warranties, expressed or implied, which extend beyond this
 description. PathnSitu is not liable for property damage, personal injury, or
 economic loss caused by this product.

**Bibliography:**  1. Couzinet, B., et al. 1993. The control of gonadotrophin secretion by ovarian
 steroids. Hum. Reprod. 2: 97-101.