

Anti-Muellerian Hormone (AMH)

AMH is a glycoprotein and belongs to the family of transforming growth factor beta superfamily. AMH drives the differentiation in the fetus; in adulthood its role is poorly understood. It is secreted in granulosa cells (highest in puberty). De Vet et al, 2002: 'AMH levels decrease progressively along with age and become undetectable after menopause.' Seifer et al, 2002: showed positive relation with number of oocytes. Fanchin et al, 2003: 'AMH is more strongly related to ovarian follicular status than inhibin B, estradiol, FSH and LH.'

Recently, the anti-Müllerian hormone (AMH) has been evaluated as a marker of ovarian response. Serum AMH levels have been measured at frequent time points during the menstrual cycle, suggesting the complete absence of fluctuation, making it an attractive determinant of ovarian activity and indicating that AMH can be relied on as a cycle-independent marker for ovarian reserve. La Marca et al, 2006: 'Serum anti-Müllerian hormone throughout the human menstrual cycle' and Hehenkamp et al, 2006: 'Anti-Müllerian hormone levels in the spontaneous menstrual cycle do not show substantial fluctuation.'

Repeated studies have demonstrated a strong correlation between serum AMH levels and ovarian response to gonadotrophin stimulation. La Marca et al, 2010: 'Anti-Mullerian hormone (AMH) as a predictive marker in assisted reproductive technology (ART).'

Overall, AMH seems to be a reliable serum marker of ovarian response that can be measured independently of the day of the menstrual cycle.

Material: 1 ml serum

Preanalytic: AMH is stable for 24 h at 4-8°C. If transportation time is > 24 h, sample must be

frozen for dispatch! Unfrozen samples can cause a decrease of the AMH levels.

Method: ELISA

Turnaround time: 5-7 days, test is done in Germany

Dimension: ng/ml

Ref.-range: see report