Canine AMH ELISA

Enzyme-Linked Immunoassay Kit

Introduction:

In veterinary practice the presence or absence of functional gonadal tissue in dogs or cats is a recurrent challenge. In particular when the reproductive history is not known, it may be difficult to determine whether a female animal has been spayed. In female dogs or cats the presence of remaining functional ovarian remnant tissue after spaying is relevant when a presumably spayed animal is presented with clinical signs of gonadal hormone activity. In addition, laparascopic surgery performed at a young age renders the visibility of surgical scar much more difficult. Serum AMH measurement can thus be used as a diagnostic tool in the determination of functional gonadal status in dogs and cats.

ANSH LABS ADVANTAGES

Accurate

Our kit uses specific and well-characterized antibodies with canine AMH antigen as calibrators. The kit is also specifically optimized to minimize the false-positive results that may be generated due to canine anti-mouse antibodies present in serum. This generates accurate results as compared to other commercial kits that are modified human AMH kits.

Specific

The Ansh Labs Canine AMH ELISA assay has a 93.9% sensitivity and a 93.8% specificity in canines for determining spay and neuter status. Remnant ovarian tissue was found in all suspected feline ORS cases with positive AMH values (UC Davis).

Reliable

Highly published and well validated by the leading companion animal laboratories in the United States and in Europe.

- Small sample size of 25 µL; no cold-chain shipping required.
- Reportable range is 0.015 to 75 ng/mL
  Dilutes linearly for high reading samples; sample diluent provided.
- Sensitivity of 0.015 ng/mL
  Able to quantitatively differentiate intact from spayed and neutered subjects
- Multiple assay runs possible
  Breakable wells on strips allow for multiple runs until sample volume is sufficient for a full plate. Can also combine feline and canine samples on a single plate.
- Long Shelf-life
  24 months from the date of manufacture.

Precision

Sample	Mean Conc.	Within Run		Between Run		Total	
	(ng/mL)	SD	%CV	SD	%CV	SD	%CV
Control I	0.8	0.04	4.9%	0.03	4.2%	0.05	6.4%
Control II	2.4	0.07	2.8%	0.07	2.9%	0.10	4.0%
Sample 1	3.2	0.08	2.7%	0.06	1.9%	0.10	3.3%
Sample 2	8.2	0.43	5.2%	0.00	0.0%	0.43	5.2%

Expected Values

	N	Mean Age	Mean AMH (ng/mL)	Range (ng/mL)
Intact Males	32	6.7	8.25	0.2 - 73.4
Castrated Males	29	7.2	0.15	<0.15
Intact Males	30	3.5	1.22	0.2 - 5.0
Spayed Females	30	10.3	0.15	<0.15

Feline samples can also be run with the Canine AMH ELISA assay. References are listed on the second page.

Canine AMH ELISA

Product Listing

AMH is a useful tool to use with male and female dogs and cats for:

- Spay status
- Cryptorchidism
- Ovarian Remnant Syndrome
- Infertility investigations
- Reproductive potential
- Sertoli Cell Tumors
- Granulosa Cell Tumors

ELISA 96 Wells

Method	Quantitative 3-step sandwich type immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approximate Dynamic Range	0.3-11.9 ng/mL
Controls	1 positive, 1 negative
Sensitivity	0.015 ng/mL
Sample Size / Type	25 µL Serum
Shelf-life	24 months
Catalog Number	AL-116

Related Assays

Equine AMH	96-Well ELISA	AL-115
Ovine AMH	96-Well ELISA	AL-155
Porcine AMH	96-Well ELISA	AL-169
Primate AMH	96-Well ELISA	AL-105
Rat/Mouse AMH	96-Well ELISA	AL-114

Feline Testing References:

Feline reproductive function tests. Anti-Müllerian Hormone (AMH) Test for Ovarian Remnant Syndrome, Cryptorchidism and Determination of Spayed/Castrated vs. Intact. Cornell University College of Veterinary Medicine. (2022, July 18). Retrieved March 14, 2023, from https://www.vet.cornell.edu/animal-health-diagnostic-center/testing/protocols/feline-reproductive

Anti-Mullerian Hormone Testing: Feline and Canine. UC Davis Veterinary Medicine. (2023, Jan 24). Retrieved March 14, 2023, from https://www.vetmed.ucdavis.edu/labs/endo-lab/anti-mullerian-hormone-testing

References and Recommended Readings:

Holst BS. Diagnostic possibilities from a serum sample—Clinical value of new methods within small animal reproduction, with focus on anti-Müllerian hormone. Reprod Domest Anim. 2017 Apr;52 Suppl 2:303-309. doi: 10.1111/rda.12856. Epub 2016 Oct 18. PMID: 27758004.

Walter B. Anti-Müllerian hormone in dogs and cats reproduction. Reprod Domest Anim. 2020 Jul;55 Suppl 2:26-31. doi: 10.1111/rda.13603. Epub 2020 Feb 7. PMID: 32031297.

Chotimanukul S, Goericke-Pesch S, Suwimonteerabutr J, Singlor J, Sangkrachang E, Tummaruk P, Ponglowhapan S. Serum Anti-Müllerian Hormone Levels and Estrous Monitoring of GnRH Agonist Deslorelin-Induced Estrus in Bitches: A Pilot Study. Animals (Basel). 2023 Jan 12;13(2):258. doi: 10.3390/ani13020258. PMID: 36670799; PMCID: PMC9855037.

Themmen APN, Kalra B, Visser JA, Kumar A, Savjani G, Gier J, Jaques S. The use of anti-Müllerian hormone as diagnostic for gonadectomy status in dogs. Theriogenology 86 (2016) 1467–1474.

Ganz S, Wehrend A. Uptake of exogenous estrogen as a differential diagnosis of ovarian-remnant-syndrome in a bitch: a case report. BMC Vet Res. 2021 Jun 25;17(1):225. doi: 10.1186/s12917-021-02923-9. PMID: 34172052; PMCID: PMC8235845.

Yilmaz O, Toydemir T, Kirsan I, Ucmak Z, Karacam E. Anti-Mullerian hormone as a diagnostic tool for ovarian remnant syndrome in bitches. Vet Res Commun. First published online June 24, 2015.

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Reproductive Function

- Activin A [CE]
- Activin B
- Activin AB
- AFP
- AMH [CE]
- AMH, Dried Blood Spot [CE]
- AMH (PCOCheck™) [CE]
- picoAMH (MenoCheck®) [FDA, CE]
- BMP-15
- Estriol [FDA, CE]
- Follistatin
- Follistatin Like-3 (FSTL-3)
- FSH [FDA]
- FSH, Dried Blood Spot
- GDF-9
- GDF-9/BMP-15 Complex
- GDF-15 (Total)
- GDF-15 (H-Specific)
- Inhibin, Total
- Inhibin A [FDA, CE]
- picoInhibin A
- Inhibin A (OMQCheck™)
- Inhibin B [CE]
- Inhibin B, Ultra-Sensitive [CE]
- LH [FDA]
- LH, Dried Blood Spot
- PAPP-A2 [CE]
- picoPAPP-A [CE]
- PLGF [CE]
- Prolactin [FDA, CE]
- Prolactin, Dried Blood Spot [CE]
- Testosterone

Specialty Controls

- AnshCheck AMH Tri-Level Controls [FDA, CE]
- AnshCheck Inhibin B Tri-Level Controls
- AnshCheck Maternal Screening Bi-Level Controls [FDA, CE]

Metabolism

- C-Peptide of Insulin
- Glicentin
- GLP-1
- GLP-2
- Glucagon [FDA, CE]
- Major Proglucagon Fragment (MPGF)
- Oxyntomodulin
- Proglucagon

Growth Factors

- IGF-I, Free
- IGF-I, Total [FDA, CE]
- IGF-II
- IGFBP-2
- IGFBP-3, Intact
- IGFBP-3, Total
- IGFBP-4, Intact
- IGFBP-4, Total
- IGFBP-5
- picoIL-6
- Stanniocalcin 2

Species Specific Assays

- Activin B - Mouse
- AMH - Bovine, Canine, Equine, Mouse, Ovine, Porcine, Rat
- IGF-I, Free - Mouse, Rat
- IGF-I, Total-Mouse, Rat
- Inhibin A - Canine, Equine, Rodent
- Inhibin B - Canine, Equine, Rodent
- Oxyntomodulin - Mouse, Rat
- PAPP-A - Mouse

Neuronal Disorders

- MBP

**Unless stated otherwise, products are for research use only.

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Ansh Labs

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ISO 13485:2016

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