



 WISDOM PANEL™

and

Adopt a Pet

**Shelter Pet DNA Testing
Program
Part 1: About the Program &
Science of Wisdom Panel™**

Overview

Part 1

- The Wisdom Panel™ and Adopt a Pet Partnership
- Wisdom Panel™ Shelter testing
- Why test dogs?
- Example Wisdom Panel™ Shelter reports
- The science behind Wisdom Panel™

Part 2 : Ordering, Collecting and Activating Samples

Part 3: Retrieving and Sharing Results



Two brands with a long history of supporting shelters

 **WISDOM PANEL**™

Adopt a Pet

Founded 2005
First shelter product launched 2012
Offering DNA testing to dog and cat owners worldwide
5M+ pets tested
#1 DNA test used by veterinarians

Founded in 2000
12k+ shelter partners across North America
72M pet searches annually
2.9M monthly users
1.1M social followers

MARS
Science &
Diagnostics

A Better 
World For Pets

 **WISDOM**

What is Wisdom Panel™ Shelter Testing?

Wisdom Panel™ Shelter Packs are
bundles of 10 dog DNA tests for use
prior to adoption

Designed for affordability, efficiency,
interest, and encouragement of informed
adoption



What's included in Shelter Packs?



Outer envelope of Shelter Pack



10X individual kits with envelopes

What's included in the adoption reports?

Wisdom Panel™ Shelter Adoption Reports

Breed makeup
down to 1% with
estimated 3
generation family
tree



MDR1 Sensitivity &
Weight Guidance



2 behavioral traits:
nesting and paw-
crossing (after web
report claim)



Relatives
(after web report
claim)

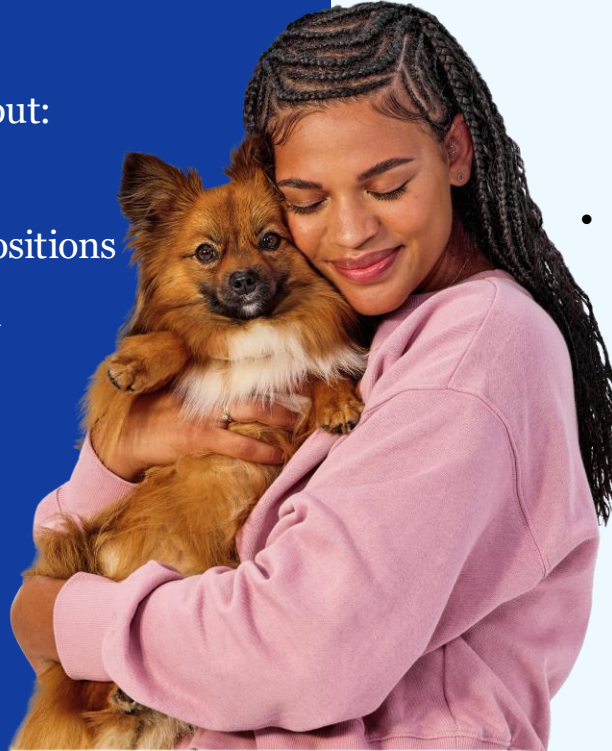


...With offer to upgrade to full Wisdom Panel™ web experience for access to traits, full disorder and full behavior results

Why DNA test shelter dogs?

From pet adopters:

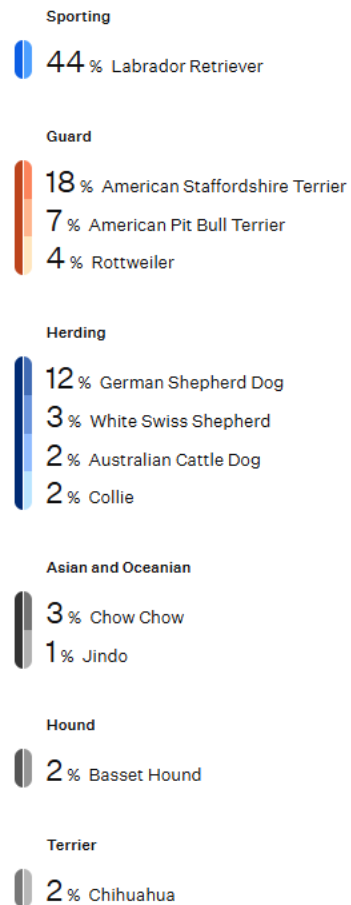
- Adopters like to know about their new best friend's **breed** background
- Most would like to know about:
 - **Health** conditions
 - **Behavioral** pre-dispositions
- Many would be interested in knowing:
 - **Relatives**



From shelters:

- DNA testing assists in the adoption process for:
 - Long stay dogs
 - Older dogs
 - Large dogs
 - Encourage compatibility of dogs and owners by correctly identifying breed make-up – size, behavioral tendencies, care needs
- Test results drive interest in the unique qualities of the dog

We detected 12 breeds in Benny's DNA.



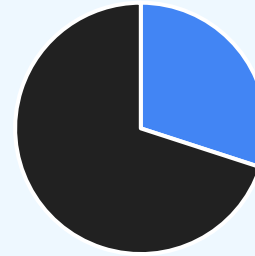
Visual ID for "Pit Bull Type"

- Even when observing the same dogs at the same time, shelter staff had only moderate agreement on breed.
- 1 in 5 dogs with pit bull ancestry was missed by all shelter staff.
- 1 in 3 dogs were mis-labeled as pit bull type by at least one staff member.
- Lack of consistency among shelter staff indicates that visual ID of pit bull-type dogs is unreliable.

Olson KR, Levy JK, Norby B, Crandall MM, Broadhurst JE, Jacks S, Barton RC, Zimmerman MS. Inconsistent identification of pit bull-type dogs by shelter staff. *Vet J.* 2015 Nov;206(2):197-202. doi: <https://doi.org/10.1016/j.tvjl.2015.07.019>.

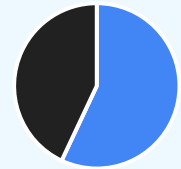
Visual ID for Mixed-Breed Dogs

"Expert" Dog ID



- Main breed(s) identified
- Main breed(s) not identified

When "Experts" Agreed:

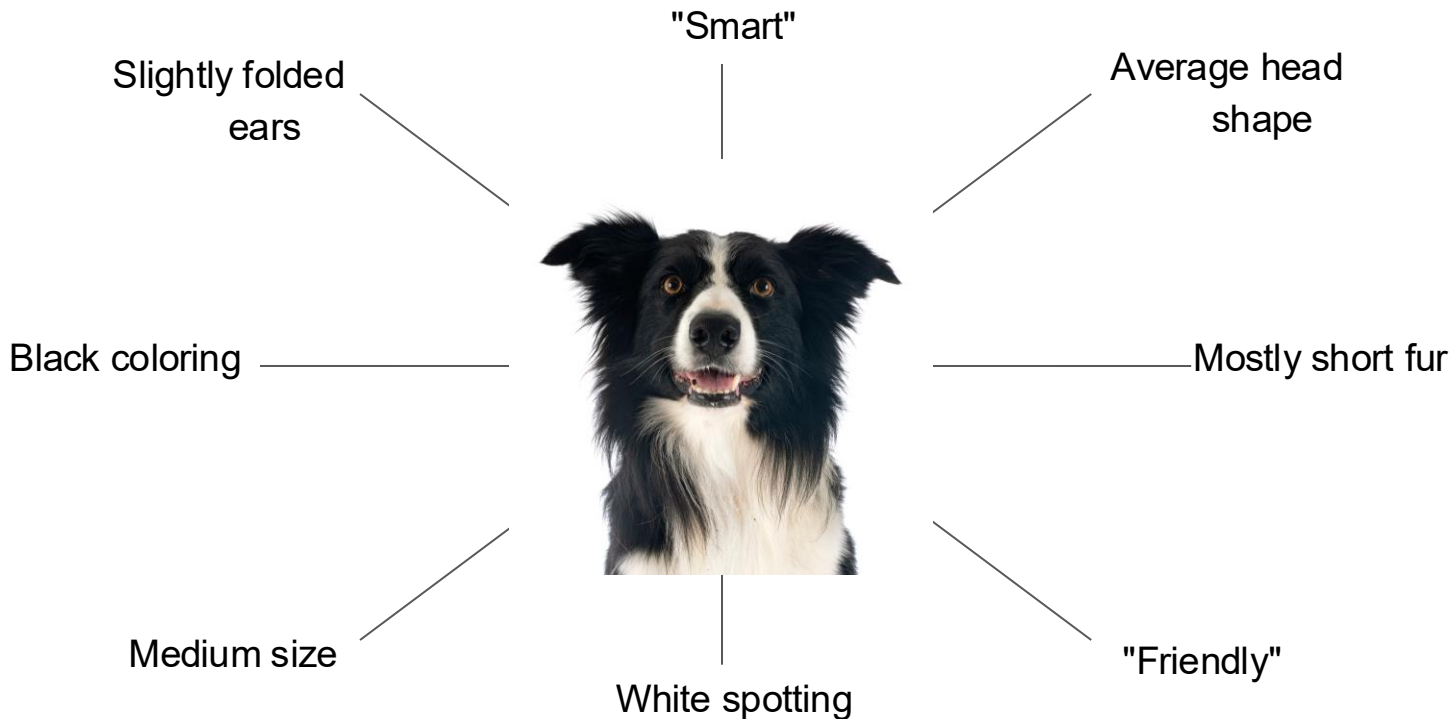


- Breed ID was correct
- Breed ID was incorrect

Voith, V, Travejo, R. Comparison of Visual and DNA Breed Identification of Dogs and Inter-Observer Reliability. *Am J of Soc Res.* 2013, 3(2):17-29. doi: [10.5923/j.sociology.20130302.02](https://doi.org/10.5923/j.sociology.20130302.02)



Physical Traits



Example Adoption Reports

Page 1: Summary & QR Claim Code

Shelly

WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BWXCKYPQRK
Test date: 2025-10-06

Shelly's Profile



There's more to learn about Shelly!

Scan the QR code to get access to her full digital report that includes genetic relatives, physical traits, and more.

Pet information

Registered name	Date of birth
Shelly	null-II
Sex	Spayed
F	No

Top breeds

50% Australian Shepherd
25% Bernese Mountain Dog
25% Standard Poodle

Predicted ideal adult weight

9-15 lbs

Health summary




Page 1: Summary & QR Claim Code

Henry

WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BKCTHJHBPQ
Test date: 2025-10-08

Henry's Profile



There's more to learn about Henry!
Scan the QR code to get access to his full digital report that includes genetic relatives, physical traits, and more.

Pet information

Registered name	Date of birth
Henry	null-ll
Sex	Neutered
M	No

Top breeds

50% Chihuahua
25% Bulldog
25% Siberian Husky

Predicted ideal adult weight

9-15 lbs

Health summary

- At Risk** 1 condition
 - MDR1 Medication Sensitivity
- Carrier** 0 conditions
- Clear** 0 conditions



Page 2: Ancestry Results

Henry

WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BKCTHJHBPO
Test date: 2025-10-08

Breed ancestry

We detected 3 breeds in Henry's DNA.



Terrier



50 % Chihuahua

Guard



25 % Bulldog

Asian and Oceanian



25 % Siberian Husky

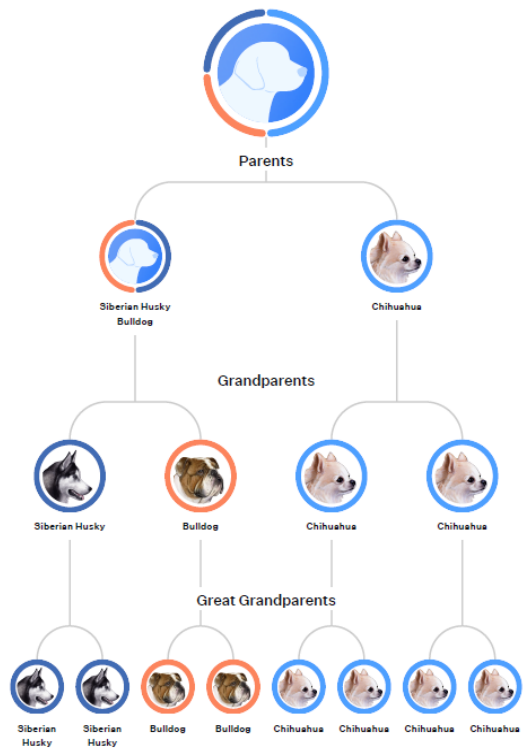


Page 3: Family Tree

Henry WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BKCTHJHBPQ
Test date: 2025-10-06

Family Tree



Page 4: MDR1 Result

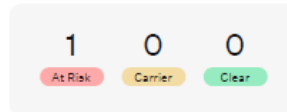
Henry WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BKCTHJHBPQ
Test date: 2025-10-08

Summary of health conditions

Key Findings

We detected 1 genetic condition in Henry's DNA.



Genetic Condition	Gene	Risk Variant	Copies	Inheritance	Result
MDR1 Medication Sensitivity	MDR1/ABCB1	Deletion	2	AD	At Risk

What this means for Henry

At Risk MDR1 Medication Sensitivity

Henry has two copies of the MDR1 Medication Sensitivity variant and will likely have an altered response to certain medications. Dogs with the MDR1 variant are slower to eliminate certain medications from their body and can suffer side effects when exposed to these medications, so it is important that the results of this test are taken into consideration when medical treatment is needed for Henry. Adverse reactions may include prolonged sedation, disorientation, tremors, seizures or death.

For dogs with the MDR1 variant it is important to be aware of medications which may result in an adverse reaction. These include: Acepromazine, Afloxolaner, Apomorphine, Butorphanol, Cyclosporin, Doxorubicin, Doramectin, Emodepside, Erythromycin, Fluralaner, Grapiprant, Ivermectin, Loperamide, Maropitant, Milbemycin, Moxidectin, Ondansetron, Paclitaxel, Rifampin, Sarolaner, Selamectin, Vinblastine, Vincristine, Vinorelbine. However, please note, all FDA approved heartworm preventatives have undergone product safety testing at the label doses for dogs with the MDR1 variant, and none reported adverse effects at the labeled dose.



Page 5 & 6: MDR1 Result & Glossary

Henry

WISDOM PANEL™

Kit type: Breed Discovery
ID kit: BKCTH.JHBPO
Test date: 2025-10-08

Henry

WISDOM PANEL™

Health conditions tested

Kit type: Breed Discovery
ID kit: BKCTH.JHBPO
Test date: 2025-10-08

At-risk and carrier conditions (1)

MDR1 Medication Sensitivity

Gene	Risk Variant	Copies	Inherits
MDR1/ABCB1	Deletion	2	AD

Glossary of genetic terms

What is it

The MDR1 gene variant causes a defect to a drug pumping protein that plays an important role in limiting drug absorption (particularly to the brain). Dogs with the MDR1 variant may have severe adverse reactions to some commonly used meds.

What it means

Henry has two copies of the MDR1 Medication Sensitivity variant and will likely have an altered response to certain meds. The MDR1 variant is slower to eliminate certain medications from their body and can suffer side effects when exposed so it is important that the results of this test are taken into consideration when medical treatment is needed for Henry. It includes prolonged sedation, disorientation, tremors, seizures or death.

For dogs with the MDR1 variant it is important to be aware of medications which may result in an adverse reaction. These include Acepromazine, Alfaxalone, Apomorphine, Butorphanol, Cyclosporin, Doxorubicin, Dexamethasone, Emodeside, Erythromycin, Grapiprant, Ivermectin, Loperamide, Maropitant, Milbemycin, Moxidectin, Ondansetron, Paclitaxel, Rifampin, Sarolaner, Vinorelbine, Vincristine, Vinorelbine. However, please note, all FDA approved heartworm preventatives have undergone testing at the label doses for dogs with the MDR1 variant, and none reported adverse effects at the labeled dose.

What to do

Here's how to care for a dog with MDR1

Partner with your veterinarian to make a plan regarding your dog's well-being, including any insights provided through this test. If your pet is at risk or is showing signs of this disorder, then the first step is to speak with your veterinarian.

Test result definitions

At Risk: Based on the disorder's mode of inheritance, the dog inherited a number of genetic variant(s) which increases the dog's risk of being diagnosed with the associated disorder.

Carrier: The dog inherited one copy of a genetic variant when two copies are usually necessary to increase the dog's risk of being diagnosed with the associated disorder. While carriers are usually not at risk of clinical expression of the disorder, carriers of some complex variants may be associated with a low risk of developing the disorder.

Clear: The dog did not inherit the genetic variant(s) associated with the disorder and will not be at elevated risk of being diagnosed with the disorder due to this genotype. However, similar clinical signs could develop from different genetic or clinical causes.

Inconclusive: An inconclusive result indicates a confident call could not be made based on the data for that genetic variant. Health testing is performed in replicates, and on occasion the outcomes do not agree. This may occur due to an unusual sequence of DNA in the region tested, multiple cell genotypes present due to chimerism or acquired mutations, or due to quality of the DNA sample.

Inheritance mode definitions

Autosomal Recessive (AR): For autosomal recessive disorders, dogs with two copies of the genetic variant are at risk of developing the associated disorder. Dogs with one copy of the variant are considered carriers and are usually not at risk of developing the disorder. However, carriers of some complex variants grouped in this category may be associated with a low risk of developing the disorder. Dogs with one or two copies may pass the disorder-associated variant to their puppies if bred.

Autosomal Dominant (AD): For autosomal dominant disorders, dogs with one or two copies of the genetic variant are at risk of developing the associated disorder. Inheriting two copies of the variant may increase the risk of development of the disorder or cause the condition to be more severe. These dogs may pass the disorder-associated variant to their puppies if bred.

X-linked Recessive (XR): For X-linked recessive disorders, the genetic variant is found on the X chromosome. Female dogs must inherit two copies of the variant to be at risk of developing the condition, whereas male dogs only need one copy to be at risk. Males and females with any copies of the variant may pass the disorder-associated variant to their puppies if bred.

X-linked Dominant (XD): For X-linked dominant disorders, the genetic variant is found on the X chromosome. Both male and female dogs with one copy of the variant are at risk of developing the disorder. Females inheriting two copies of the variant may be at higher risk or show a more severe form of the disorder than with one copy. Males and females with any copies of the variant may pass the disorder-associated variant to their puppies if bred.

Mitochondrial (MT): Unlike the two copies of genomic DNA held in the nucleus, there are thousands of mitochondria in each cell of the body, and each holds its own mitochondrial DNA (mtDNA). Mitochondria are called the "powerhouses" of the cell. For a dog to be at risk for a mitochondrial disorder, it must inherit a certain ratio of mtDNA with the associated variant compared to normal mtDNA. mtDNA is inherited only from the mother.



The Science Behind Wisdom Panel™

Accuracy

The Science Behind Wisdom Panel™ Testing

The most accurate dog DNA testing on the market

Breed Detection

Disorder Detection*

Relatives Database*



365+ breeds
Breed detection 40x greater genetic
resolution than competitors

Largest pet health database
>99% accuracy
Not tied to breed detection!

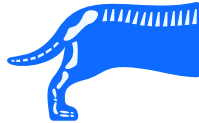
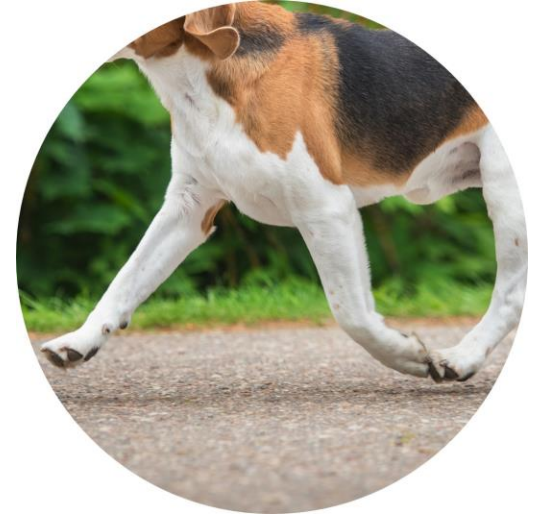
World's largest dog database at
5M+ tested
Over 99% of dogs have a relative,
over 50% have a close relative

*Full disorders and Relatives with upgrade



Disorders

- Leading genetic testing service of veterinarians
- 265+ genetic disorders tested with upgrade to Premium
- MDR1 Sensitivity included with all Shelter Pack tests
- 57% of dogs have at least one disorder or risk finding





Wisdom Panel™ Behaviors

Wisdom Data

- 4.5 million dogs
- 1.5 million veterinary medical records
- 200,000+ survey responses from our pet parent community

Wisdom Research

- 150+ Genome-wide association studies or "DNA pattern hunts"

15 Genetic Behavioral Predispositions*

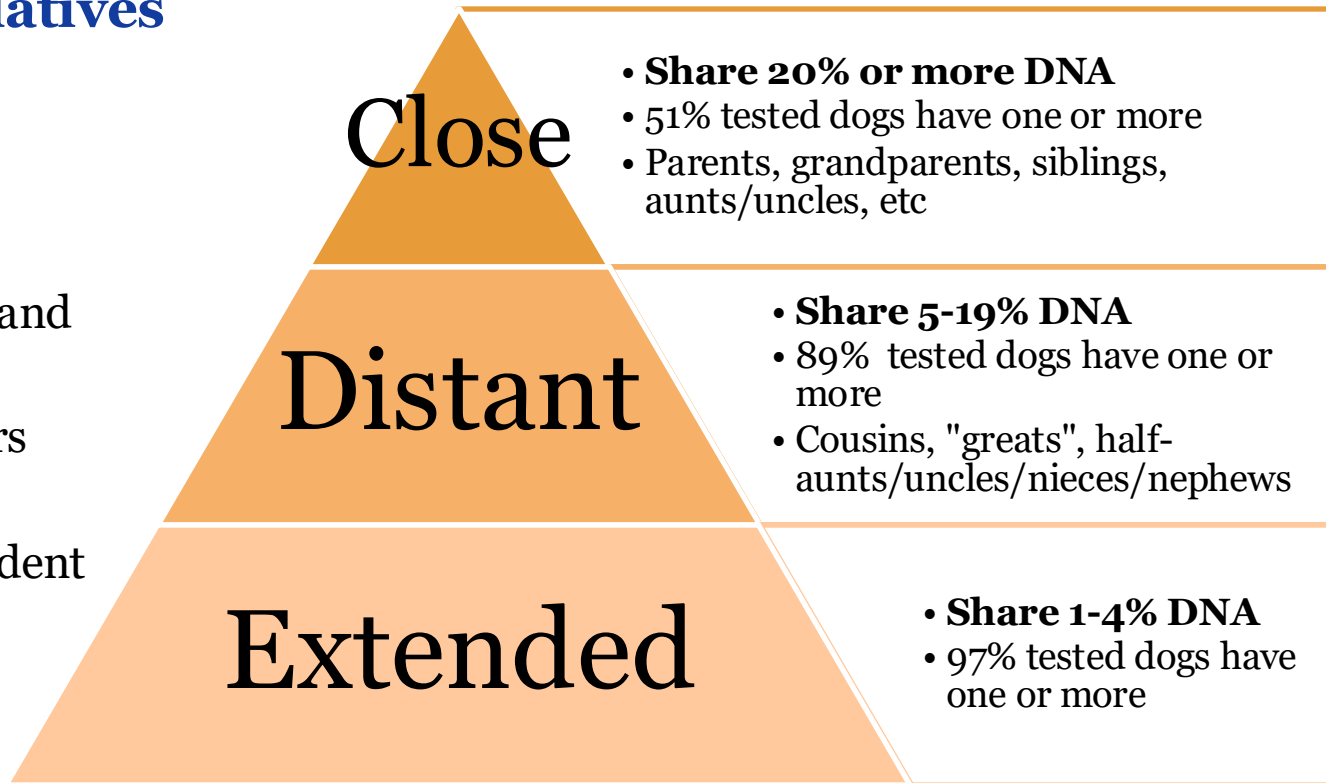
- Crossing paws (included)
- Nesting (included)
- Sleeps on back
- Splooting
- Pointing instinct
- Motion sickness
- Avoids getting wet
- Reverse sneezing
- General anxiety
- Separation anxiety
- Anal Sacs need expression
- Friendly towards strangers
- Fearful towards strangers
- Weight gain

*Full list of Behavioral Predispositions included with upgrade to Premium



Relatives

300+ million
relationships and
counting
~100,000 markers
compared
Matches independent
of breed





WISDOM PANEL™

The world's leading pet DNA service

Questions?

Questions about getting started, pet listings, and ordering contact Adopt a Pet at helpdesk@adoptapet.com

FAQs available on Adopt a Pet's Help Center: <https://adoptapetcom.zendesk.com/hc/en-us/sections/28684698251547-Wisdom-Panel-Program>

Questions about payment, invoicing, or portal access contact Wisdom Panel: wisdomshelters@wisdompanel.com