



# **Human vs Non-Human Bone Origin Determination**

## **Test No. 26-5501 Summary Report**

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Each participant received a sample pack consisting of digital images of several different bones, which they were asked to determine if each was of human origin or non-human origin. Data were returned from 38 participants and are compiled into the following tables:

	<u>Page</u>
<a href="#"><u>Manufacturer's Information</u></a>	<u>2</u>
<a href="#"><u>Summary Comments</u></a>	<u>3</u>
<a href="#"><u>Table 1: Examination Results</u></a>	<u>4</u>
<a href="#"><u>Table 2: Additional Comments</u></a>	<u>6</u>
<a href="#"><u>Appendix: Data Sheet</u></a>	

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

## Manufacturer's Information

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Each digital sample pack consisted of several images of different bones. Participants were asked to determine which of the bones were human in origin and which were of non-human animal origin.

SAMPLE PREPARATION: Bones from a variety of species were selected and photographed. Photographs of several representative perspectives were chosen for each bone. These images were digitally resized to scale and adjusted for consistency of color and contrast. The images were then zipped and uploaded to the CTS Portal. The digital upload was then checked to ensure all items were accessible.

VERIFICATION: Predistribution results were consistent with each other and the manufacturer's preparation information.

Item	Source
1	Human, Mandible
2	Racoon, Mandible
3	Fox, Tibia
4	Cow, Vertebra
5	Human, Scapula

## **Summary Comments**

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This test was designed to allow participants to assess their proficiency in determining whether a bone was of human origin or non-human origin. Participants were supplied with digital images of several different bones. Items 1 and 5 were of human origin and Items 2 through 4 were of non-human origin. Refer to the Manufacturer's Information for preparation details.

All participant origin results were consistent with the manufacturer's preparation information.

# Examination Results

*What is the origin of the bone represented in the submitted photographs (Items 1-5)?*

TABLE 1

WebCode	Item 1	Item 2	Item 3	Item 4	Item 5
2JZ6W3	Human	Non-Human	Non-Human	Non-Human	Human
3KQP4Y	Human	Non-Human	Non-Human	Non-Human	Human
4CFNHY	Human	Non-Human	Non-Human	Non-Human	Human
7AXDHW	Human	Non-Human	Non-Human	Non-Human	Human
7BUWJX	Human	Non-Human	Non-Human	Non-Human	Human
83XDHU	Human	Non-Human	Non-Human	Non-Human	Human
846VGQ	Human	Non-Human	Non-Human	Non-Human	Human
8X4JKT	Human	Non-Human	Non-Human	Non-Human	Human
A78DRQ	Human	Non-Human	Non-Human	Non-Human	Human
B2R3EM	Human	Non-Human	Non-Human	Non-Human	Human
B8XYXM	Human	Non-Human	Non-Human	Non-Human	Human
BXBFR	Human	Non-Human	Non-Human	Non-Human	Human
CHE3HR	Human	Non-Human	Non-Human	Non-Human	Human
CHVYBR	Human	Non-Human	Non-Human	Non-Human	Human
CUR66P	Human	Non-Human	Non-Human	Non-Human	Human
CY2HLN	Human	Non-Human	Non-Human	Non-Human	Human
DHP66Q	Human	Non-Human	Non-Human	Non-Human	Human
FK6BGH	Human	Non-Human	Non-Human	Non-Human	Human
FP6MDH	Human	Non-Human	Non-Human	Non-Human	Human
HUL2UK	Human	Non-Human	Non-Human	Non-Human	Human
J7XQ8G	Human	Non-Human	Non-Human	Non-Human	Human

TABLE 1

WebCode	Item 1	Item 2	Item 3	Item 4	Item 5
J9ZLQJ	Human	Non-Human	Non-Human	Non-Human	Human
JYVEBJ	Human	Non-Human	Non-Human	Non-Human	Human
K6GUFG	Human	Non-Human	Non-Human	Non-Human	Human
KRVECH	Human	Non-Human	Non-Human	Non-Human	Human
MTF6CD	Human	Non-Human	Non-Human	Non-Human	Human
NCMU3F	Human	Non-Human	Non-Human	Non-Human	Human
NG36FJ	Human	Non-Human	Non-Human	Non-Human	Human
Q83PJB	Human	Non-Human	Non-Human	Non-Human	Human
QCHYWE	Human	Non-Human	Non-Human	Non-Human	Human
QHNTQA	Human	Non-Human	Non-Human	Non-Human	Human
RD9HD7	Human	Non-Human	Non-Human	Non-Human	Human
T7JG9D	Human	Non-Human	Non-Human	Non-Human	Human
UHRMX7	Human	Non-Human	Non-Human	Non-Human	Human
VNDWLA	Human	Non-Human	Non-Human	Non-Human	Human
VXNY7A	Human	Non-Human	Non-Human	Non-Human	Human
XKRTQ9	Human	Non-Human	Non-Human	Non-Human	Human
XNR6M9	Human	Non-Human	Non-Human	Non-Human	Human

<b>Response Summary</b>					<b>Participants: 38</b>
<i>What is the origin of the bone represented in the submitted photographs (Items 1-5)?</i>					
	<u>Item 1</u>	<u>Item 2</u>	<u>Item 3</u>	<u>Item 4</u>	<u>Item 5</u>
Human	<b>38 (100.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>38 (100.0%)</b>
Non-Human	<b>0 (0.0%)</b>	<b>38 (100.0%)</b>	<b>38 (100.0%)</b>	<b>38 (100.0%)</b>	<b>0 (0.0%)</b>
Inconclusive	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>	<b>0 (0.0%)</b>

## Additional Comments

TABLE 2

WebCode	Additional Comments
2JZ6W3	The characteristics of the structures present were analyzed, including shape, size, robustness, and muscle attachment sites.
846VGQ	Excellent images for conducting the origin determination test
B8XYXM	Item 1: human edentulous mandible. Item 2: nonhuman mandible. Item 3: nonhuman tibia. Item 4: nonhuman vertebra. Item 5: human scapula. All items have visible diagnostic gross morphology to support assessment
J7XQ8G	Item 1: Human bone, mandible. The morphological characteristics and dimensional parameters of the bone specimen are consistent with those of a human mandible. Item 2: Animal bone, mandible. The morphological characteristics and dimensional parameters of the bone specimen are consistent with those of an animal mandible (e.g., cats or raccoons). Item 3: Animal bone, tibia. The morphological characteristics and dimensional parameters of the bone specimen are consistent with those of an animal tibia (e.g., dogs or cats). Item 4: Animal bone, vertebrae. The morphological characteristics and dimensional parameters of the bone specimen are consistent with those of an animal vertebra, specifically resembling the atlas (first cervical vertebra) of cattle. Item 5: Human bone, scapula. The morphological characteristics and dimensional parameters of the bone specimen are consistent with those of a human scapula.
J9ZLQJ	Item 1 Human mandible. Item 2 Fauna mandible carnivora. Secodont dentition. Item 3 Fauna . Tibia immature specimen. Item 4 Fauna atlas. Item 5 Human right scapula. Identification of item 3 would be facilitated with the possibility of viewing methaphyseal surfaces
K6GUFG	You can announce before to start the test that we have limit time to complete it.
NCMU3F	The photographs still heavy and it takes too long to open the files.
QHNTQA	ITEM 1 IS A HUMAN MANDIBLE, EDENTULOUS. ITEM 2 IS A CANINE MANDIBLE, RIGHT SIDE, CANIS FAMILY. ITEM 3 IS A RIGHT TIBIA, PRIMATE, LACK OF EPIPHYSES SUGGEST A JUVENILE. ITEM 4 IS A C1 VERTEBRAE (ATLAS) OF THE BOVIDAE FAMILY. ITEM 5 IS A HUMAN SCAPULA, RIGHT SIDE.

-End of Report-  
(Appendix may follow)

## Test No. 26-5501: Human vs Non-Human Bone Origin Determination

DATA MUST BE SUBMITTED BY **March 16, 2026, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: XUGHT3

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

### Scenario:

In five unrelated cases, photographs of bones have been submitted for analysis to determine whether they are human or non-human in origin. Each Item (1-5) below represents a separate, independent case.

### Items Submitted (Sample Pack HNH):

Item 1: Images 1a, 1b, 1c, 1d

Item 2: Images 2a, 2b

Item 3: Images 3a, 3b, 3c, 3d

Item 4: Images 4a, 4b, 4c, 4d

Item 5: Images 5a, 5b, 5c, 5d

To verify a complete and accurate download, the hash value for the downloaded .ZIP file is as follows:

26-5501\_DataForParticipants.zip MD5 hash value: 117400c94c841530ec59b1bb36fe1934

26-5501\_DataForParticipants.zip SHA1 hash value: c45be914ef1b80cac636bb08d63e9626cdd5b0b5

### 1.) What is the origin of the bone represented in the submitted photographs (Items 1-5)?

- |               |                             |                                 |                                     |
|---------------|-----------------------------|---------------------------------|-------------------------------------|
| <i>Item 1</i> | Human <input type="radio"/> | Non-Human <input type="radio"/> | Inconclusive* <input type="radio"/> |
| <i>Item 2</i> | Human <input type="radio"/> | Non-Human <input type="radio"/> | Inconclusive* <input type="radio"/> |
| <i>Item 3</i> | Human <input type="radio"/> | Non-Human <input type="radio"/> | Inconclusive* <input type="radio"/> |
| <i>Item 4</i> | Human <input type="radio"/> | Non-Human <input type="radio"/> | Inconclusive* <input type="radio"/> |
| <i>Item 5</i> | Human <input type="radio"/> | Non-Human <input type="radio"/> | Inconclusive* <input type="radio"/> |

\*Should an item(s) be marked "Inconclusive", please document the reason in the Additional Comments section of this data sheet.

**Note:** Please use appropriate punctuation to indicate the end of sentences, sections, and statements in the free-form space below. Extra spacing and returns used for separation within your text will not transfer and may cause your information to be illegible in the Summary Report. The use of lists and tabular formats to deliver information is also cautioned against, as these do not transfer.

## 2.) Additional Comments

## RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ANAB and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ANAB and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is **not** intended for submission to ANAB and/or A2LA.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

**Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.**

ANAB Certificate No.

A2LA Certificate No.

**Step 2: Complete the Laboratory Identifying Information in its entirety.**

Authorized Contact Person and Title

Laboratory Name

Location (City/State)