

Lung Nodule Analysis Report

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Scan ID: 187803155574314810830688534991

Series UID: 1.3.6.1.4.1.14519.5.2.1.6279.6001.187803155574314810830688534991

Date: April 29, 2025

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Nodule Characteristics

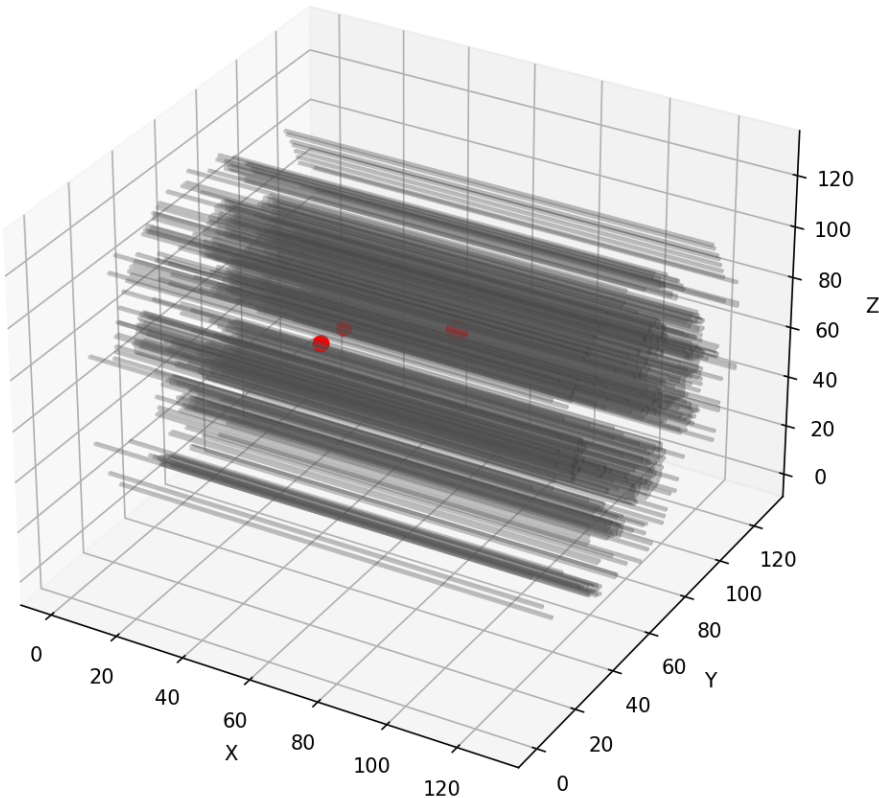
Nodule Characteristics:

Nodule	X-Coord	Y-Coord	Z-Coord	Diameter (mm)
1	64	89	63	22.00
2	37	65	63	12.00
3	38	75	63	10.00

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3D Nodule Visualization

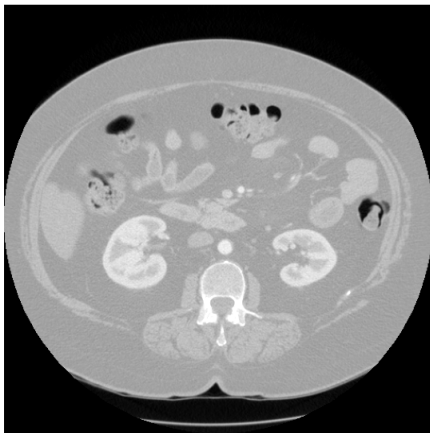
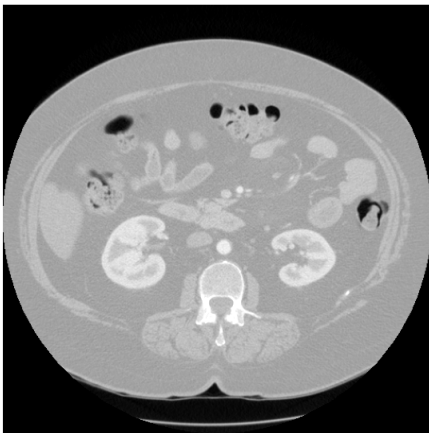
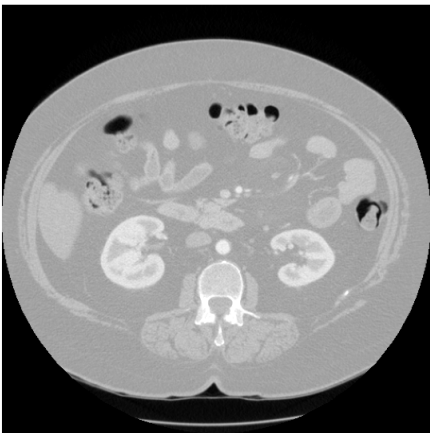
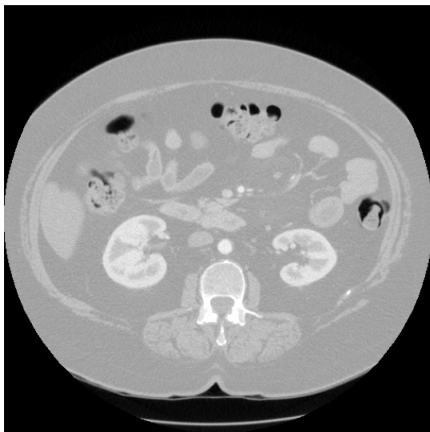
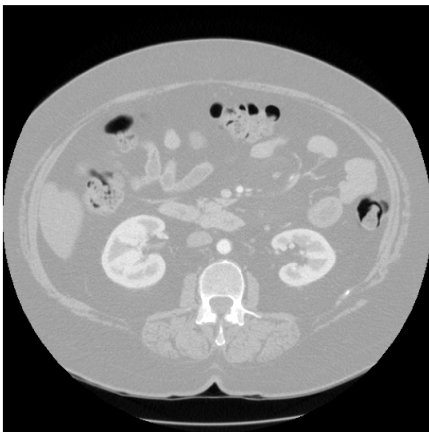
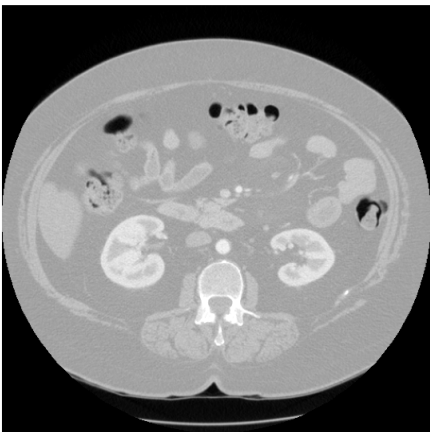
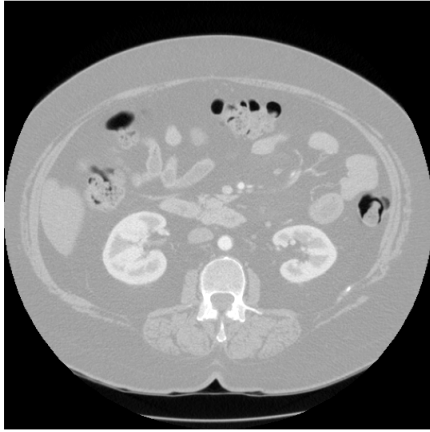
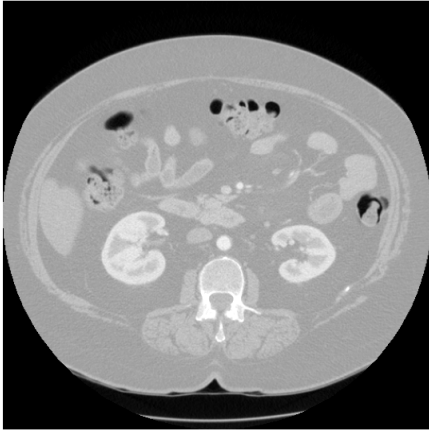
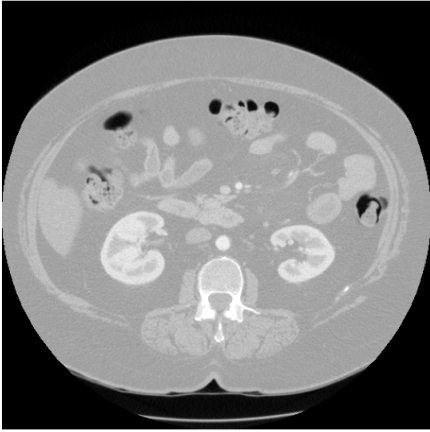
3D Visualization of Detected Nodules



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Original CT Scan

Multi-slice visualization of the original lung CT scan:



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Original CT Scan - Orthogonal Views

Axial, Coronal, and Sagittal views of the original CT scan:

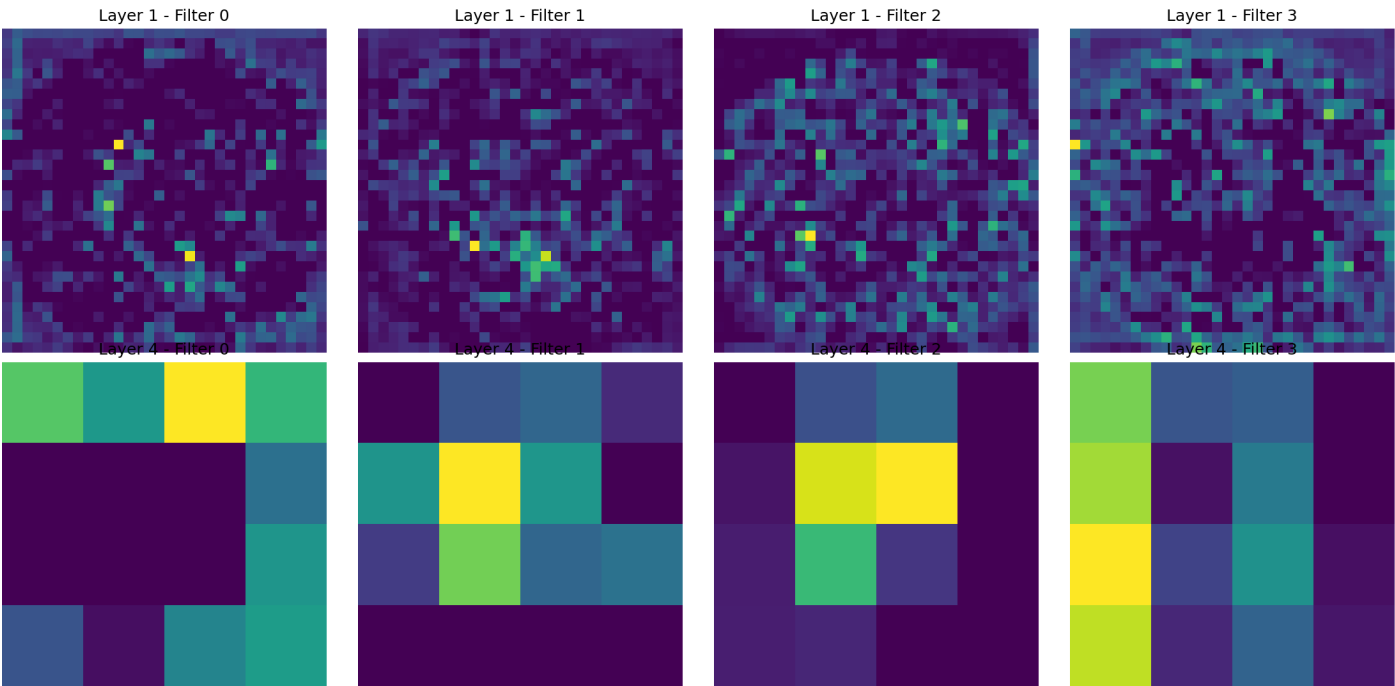


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Neural Network Activation Maps

Visualizations of the model's internal activations when processing this scan:

DPN3D Network Activation Maps



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Analysis Summary

Prediction: Nodule Detected

Confidence: 71.40%

Class Probabilities:

- Nodule: 71.40%

- Non-nodule: 28.60%

Number of detected nodules: 3

Nodule 1: Located at position (x=64, y=89, z=63), approx. diameter: 22mm

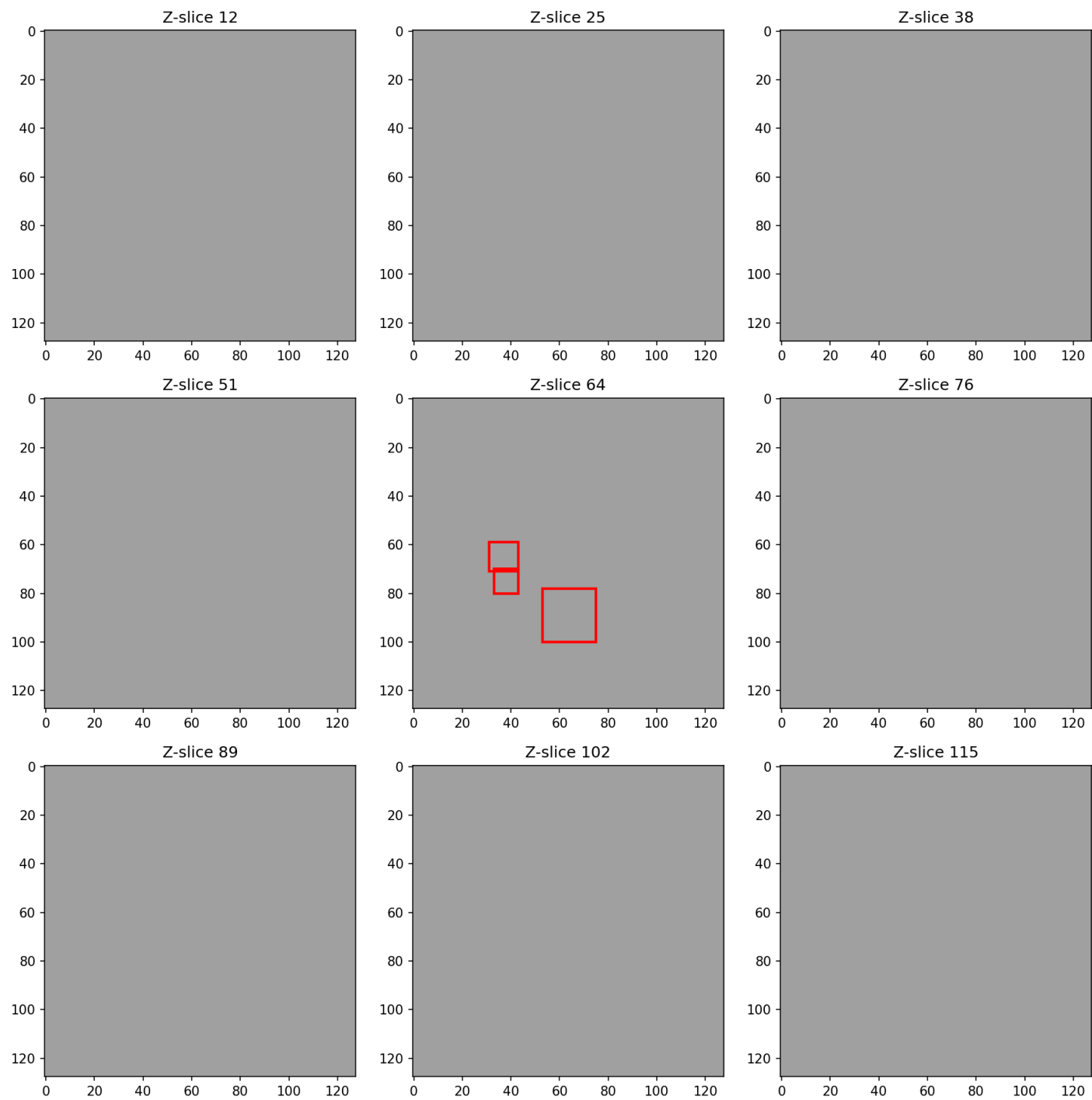
Nodule 2: Located at position (x=37, y=65, z=63), approx. diameter: 12mm

Nodule 3: Located at position (x=38, y=75, z=63), approx. diameter: 10mm

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Preprocessed CT Scan Visualizations

Multi-slice visualization of the preprocessed lung CT scan:



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Nodule 1 Analysis

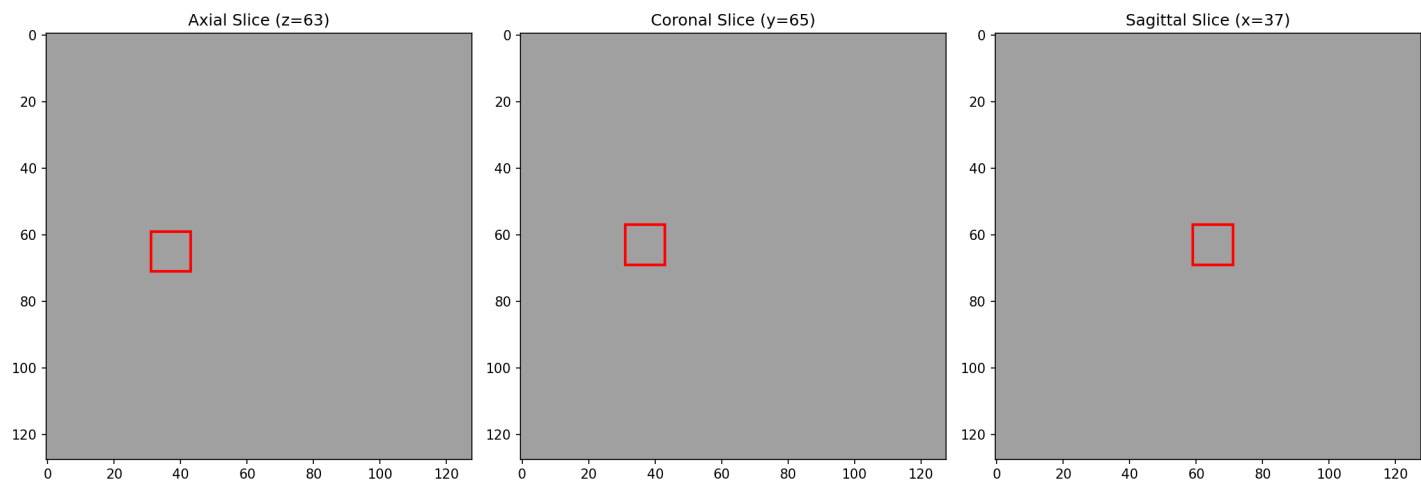
Axial, Coronal, and Sagittal slices showing the detected nodule:



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Nodule 2 Analysis

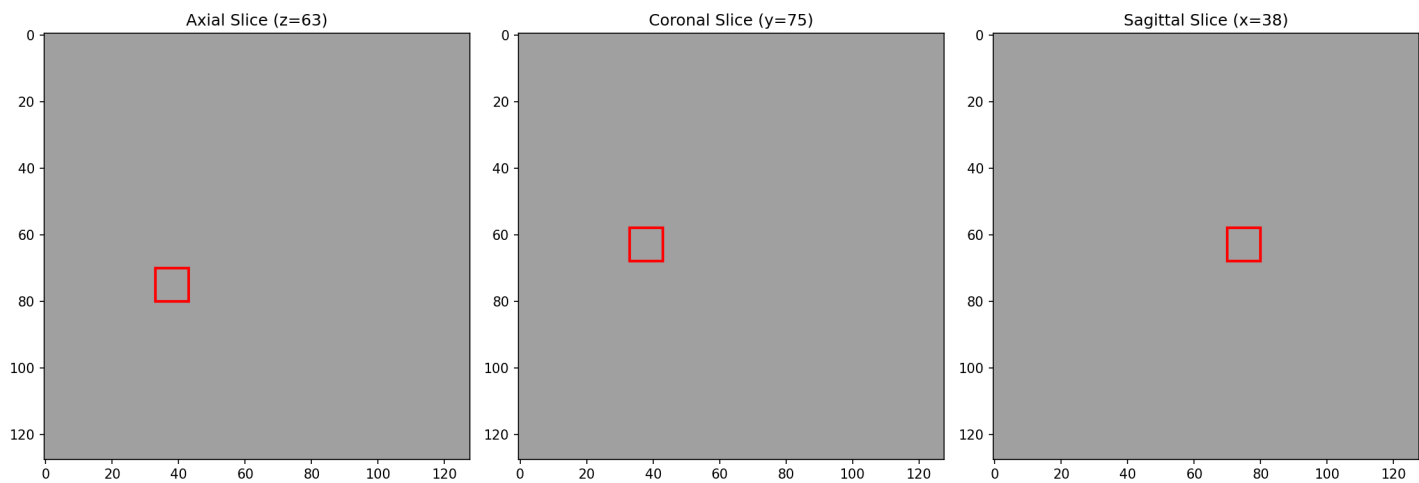
Axial, Coronal, and Sagittal slices showing the detected nodule:



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Nodule 3 Analysis

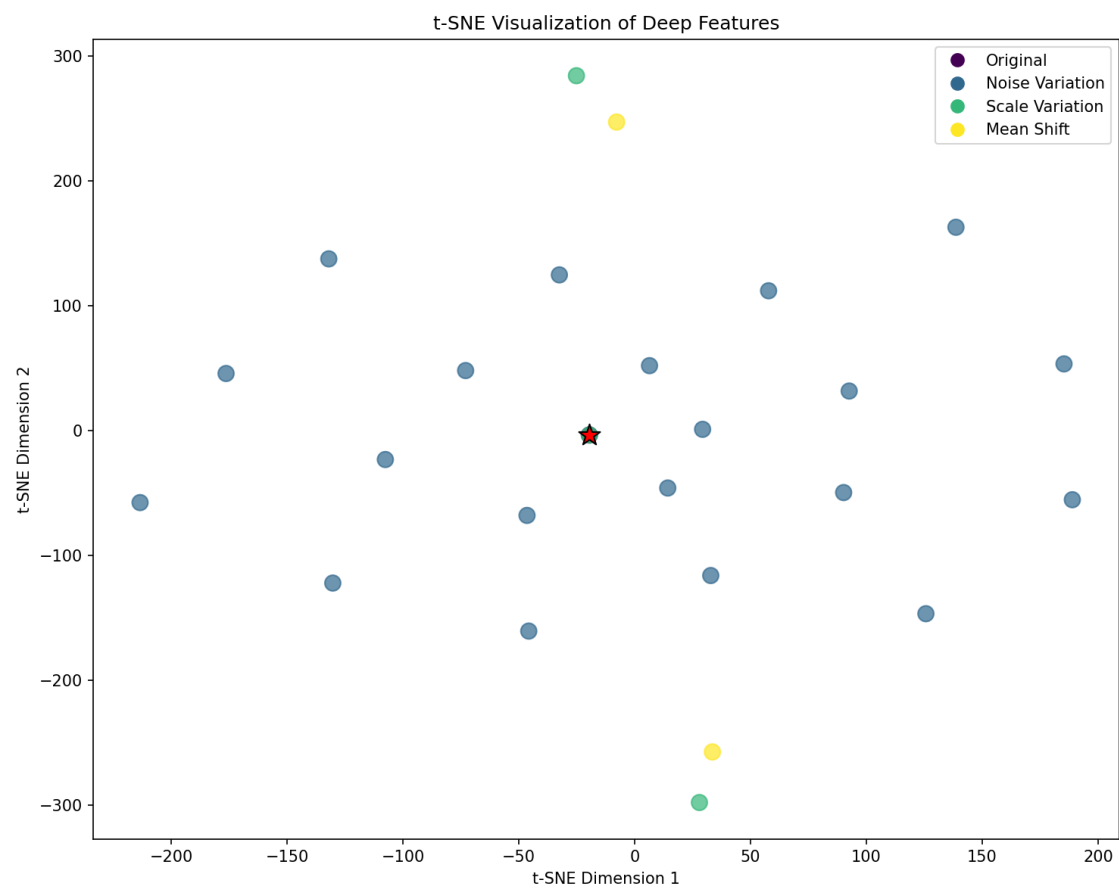
Axial, Coronal, and Sagittal slices showing the detected nodule:



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Deep Feature Analysis

t-SNE visualization of deep features extracted by the neural network:



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Clinical Recommendations

Pulmonary nodule(s) detected.

Nodule 1: Approximately 22.0mm in diameter. Consider further evaluation with PET/CT or tissue sampling based on patient risk factors and nodule characteristics.

Nodule 2: Approximately 12.0mm in diameter. Consider further evaluation with PET/CT or tissue sampling based on patient risk factors and nodule characteristics.

Nodule 3: Approximately 10.0mm in diameter. Consider further evaluation with PET/CT or tissue sampling based on patient risk factors and nodule characteristics.

Note: Model confidence is moderate. Radiologist assessment is strongly recommended.

DISCLAIMER: This report was generated using artificial intelligence and is intended to assist medical professionals. It should not replace professional medical judgment. All findings should be verified by a qualified radiologist.