

Lung NET diagnostic checklist

Many lung NET are asymptomatic or have nonspecific symptoms, which can make them difficult to diagnose. A combination of imaging techniques, immunohistochemical (IHC) biomarkers, and proliferation markers can aid in obtaining a timely, accurate diagnosis.^{1,2}

The following tests may be useful in identifying and classifying lung NET:

1 DETECTING THE TUMOR^{1,3}

✓ Imaging

- Chest and abdominal CT
- MRI
- PET

✓ Bronchoscopy

2 DIAGNOSING NET

✓ IHC biomarkers^{1,2}

- Synaptophysin
- Chromogranin A
- Cluster of differentiation 56
- Thyroid transcription factor-1
- Cytokeratins
- Neuron-specific enolase

Ensure sufficient tissue for a complete biopsy—incomplete IHC panels may interfere with accurate identification of lung NET subtype^{2,3}

✓ Proliferation markers and necrosis^{1,2}

	Mitotic Rate and Presence of Necrosis	Ki-67
Grade 1	<2 mitoses/10 HPF and no necrosis	<2% Ki-67 index
Grade 2	2-10 mitoses/10 HPF and focal punctate necrosis	2-20% Ki-67 index
Grade 3	>10 mitoses/10 HPF and extensive necrosis	>20% Ki-67 index

3 ADDITIONAL STAGING FOR CONFIRMED LUNG NET

✓ 5-HIAA^{3,4}

- Recommended for patients with metastatic lung carcinoid tumors if carcinoid syndrome is suspected

✓ Octreoscan™ (somatostatin receptor scintigraphy)¹

✓ Ga 68 dotatate PET¹

Learn more about how diagnosing lung NET early can help lead to appropriate treatment

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Abbreviations: CT, computed tomography; 5-HIAA, 5-hydroxyindoleacetic acid; HPF, high-power fields; IHC, immunohistochemical; MRI, magnetic resonance imaging; NET, neuroendocrine tumor(s); PET, positron emission tomography.

Octreoscan is a trademark of Curium.

References: **1.** Wolin EM. Challenges in the diagnosis and management of well-differentiated neuroendocrine tumors of the lung (typical and atypical carcinoid): current status and future considerations. *Oncologist*. 2015;20(10):1123-1131. **2.** Rekhtman N. Neuroendocrine tumors of the lung: an update. *Arch Pathol Lab Med*. 2010;134(11):1628-1638. **3.** Kunz PL, Reidy-Lagunes D, Anthony LB, et al. Consensus guidelines for the management and treatment of neuroendocrine tumors. *Pancreas*. 2013;42(4):557-577. **4.** Jensen RT, Doherty GM. Carcinoid tumors and the carcinoid syndrome. In: DeVita VT Jr, Hellman S, Rosenberg SA, eds. *Cancer: Principles & Practice of Oncology*. 7th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2005:1559-1574.