



Algorithm of IHC antibody panels

Part 2: Site-specific biomarker panel – Neuroendocrine

Differential diagnosis	Most commonly used biomarkers
1. Neuroendocrine Neoplasms (ALL NEN)	SYP, CGA, INSM1, CD56
↳ 2. Well-differentiated vs Poorly differentiated (NEC?)	Ki67 , p53, p16, Rb, SMARCA4/SMARCB1
↳ 3. NEN origin (Site Lineage below)	
Gastrointestinal	CDX2, SATB2, CK20, CK7
Pancreas	ISL-1, PR, PAX6
Thyroid	TTF1, CEA, Calcitonin, PAX8, Thyroglobulin
Lung	TTF1, Napsin A, DUO p40/Napsin A, DUO CK5/6/TTF1
Prostate	NKX3.1, PSA, Prostein
Gynecologic (Cervix/Endometrium/Ovary)	PAX8, WT1
Breast	GATA3, GCDFP-15, Mammaglobin, TRPS1
Extra-Adrenal Gland (Paraganglioma)	S100B, SOX10, NFP, GATA3, SDHB
Adrenal Gland (pheochromocytoma)	S100B, SOX10, NFP, Inhibin-alpha
Skin (Merkel cell carcinoma)	CK20, Polyomavirus, ALK

*The list above outlines a tiered approach for identifying the origin of metastatic NENs. Those **bolded** are the most commonly used biomarkers.



Neuroendocrine biomarkers

Most commonly used biomarkers

SYP, CGA, Ki67, INSM1, CD56

More biomarkers available from Sakura Finetek USA

ALK, CDX2, CD56, CEA, CGA, CK7, CK20, DUO CK5/6/TTF1, DUO p40/Napsin A, INSM1, GATA3, GCDFP-15, Ki67, Mammaglobin, Napsin A, NKX3.1, PAX8, PR, Prostein, PSA, p16, p53, SATB2, SOX10, SYP, S100B, TRPS1, TTF1, WT1