Effective immediately, the Allina Health Immunhistochemistry laboratory is performing the INSM1 stain.

**Applications:**

- INSM1 is positive in neuroendocrine tumors and in normal adult neuroendocrine tissues and developing neurons.
- INSM1 positivity has been described in the following neoplasms:
  - CNS tumors: Pituitary adenoma, central neurocytoma, medulloblastoma, glioblastoma, pineal parenchymal tumor
  - Endocrine: Adrenal pheochromocytoma, paraganglioma, medullary carcinoma of the thyroid, and neuroblastoma
  - Gastrointestinal tract: Pancreatic neuroendocrine tumors (100%) and gastrointestinal neuroendocrine tumors (100%)
  - Lung: Small cell carcinoma (95%), large cell neuroendocrine carcinoma (90%), typical and atypical carcinoid (100%). Weak or focal positivity has been reported in lung adenocarcinomas (3%) and squamous cell carcinomas (4%).
  - Skin: Merkel cell carcinoma (93%), endocrine mucin producing sweat gland carcinoma
  - Soft tissue tumors: Extraskeletal myxoid chondrosarcoma (90%), chordoma (10%), soft tissue myoepithelioma (5%), ossifying fibromyxoid tumor (30%), and Ewings sarcoma (30%)
- INSM1 positivity has been reported in the following in tumors with neuroendocrine differentiation: Breast adenocarcinoma, colonic adenocarcinoma, endometrioid carcinoma, and prostate adenocarcinoma
- INSM1 is positive in the following normal tissues: Adrenal medulla, enterochromaffin cells, islet cells, C cells of the thyroid, pineal gland, pituitary gland, and in neurons in early development
**Test Name:** INMS1 by IHC

**Test Number:** 12376 - Technical only; 12379 - Technical & Interpretation

**Collect:** Formalin-fixed, paraffin embedded (FFPE) tissue block. _All IHC stains will include a positive control tissue on each slide._

**Container:** FFPE tissue block

**Processing:** Submit processed tissue block

**Transport/Stability:** Ambient (preferred)

**Alternate Names:** IHC  
LAB12376  
LAB12379

**Performing Lab:** AHL – Immunohistochemistry

**Days Set Up:** Mo – Fr

**Expected TAT:** 1 - 2 days

**Ref. Ranges:** If requested, an interpretive report will be provided

**Collection/Processing Details:**

*Specifications:*

Zinc finger transcription factor involved in development of normal neuroendocrine cells throughout the body and involved in tumor neuroendocrine differentiation.

*Staining pattern:*

Nuclear

**Method:** Immunohistochemical staining  
Microscopic examination

**CPT Codes:** 88342 - 1st stain  
88341 - each additional stain

**References:**


