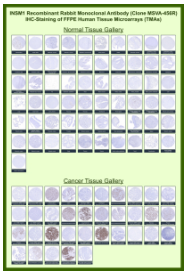
INSM1 Antibody for IHC / Insulinoma-associated 1 IHC Antibody [clone MSVA-456R] (V6091)

Catalog No.	Formulation	Size
V6091-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6091-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-456R
UniProt	Q01101
Localization	Nucleus
Applications	Immunohistochemistry (FFPE) : 1:75-1:150
Limitations	This INSM1/Insulinoma-associated 1 antibody is available for research use only.



INSM1 Antibody for IHC (clone MSVA-456R). Immunohistochemistry analysis of Insulinoma-associated protein 1 (INSM1) in formalin-fixed, paraffin-embedded human tissue microarrays using a recombinant rabbit monoclonal antibody. The INSM1 Antibody for IHC (clone MSVA-456R) demonstrates strong nuclear staining in neuroendocrine tumor cells including small cell lung carcinoma, neuroendocrine tumors, and Merkel cell carcinoma, while most non-neuroendocrine tissues remain negative. The nuclear HRP-DAB staining pattern highlights the transcription factor localization of INSM1 within tumor cell nuclei, consistent with its role as a neuroendocrine lineage marker. Staining distribution across normal and cancer tissues corresponds with reported INSM1 expression profiles in Human Protein Atlas datasets.

Description

Insulinoma-associated protein 1 (INSM1) is a zinc finger transcription factor encoded by the INSM1 gene that plays an important role in neuroendocrine cell differentiation during embryonic development. The protein functions as a transcriptional regulator controlling genes involved in neuroendocrine lineage specification and hormone producing cell maturation. INSM1 Antibody for IHC (clone MSVA-456R) recognizes the INSM1 protein and is designed specifically for

immunohistochemistry detection of neuroendocrine cells and tumors in formalin-fixed, paraffin-embedded tissue sections.

Immunohistochemistry is the primary method used to evaluate INSM1 expression in pathology and research studies because the protein exhibits a distinctive nuclear staining pattern. As a transcription factor, INSM1 localizes to the nucleus, producing clear nuclear HRP-DAB staining in positive cells while surrounding stromal and epithelial components remain largely negative. This nuclear signal provides a highly interpretable immunohistochemistry readout and allows investigators to readily identify neuroendocrine tumor cells within complex tissue architecture.

In normal human tissues, INSM1 expression detected by immunohistochemistry is typically restricted to scattered neuroendocrine cells within epithelial organs. Nuclear staining may be observed in endocrine cells of the pancreas, bronchial neuroendocrine cells of the respiratory tract, and rare neuroendocrine cells of the gastrointestinal mucosa. Because these cells represent specialized hormone secreting lineages, immunohistochemistry detection of INSM1 provides a reliable method for identifying neuroendocrine differentiation in tissue sections.

INSM1 immunohistochemistry has become widely used in the evaluation of neuroendocrine tumors. Strong nuclear staining is frequently observed in small cell lung carcinoma, pulmonary neuroendocrine tumors, Merkel cell carcinoma, and neuroendocrine tumors arising in the pancreas or gastrointestinal tract. In contrast, most conventional epithelial carcinomas and non neuroendocrine tissues demonstrate minimal or absent nuclear staining, allowing INSM1 immunohistochemistry to clearly highlight neuroendocrine tumor populations within histological specimens.

Tissue microarray immunohistochemistry studies provide additional evidence of the highly selective staining pattern of INSM1. Analysis of large panels of normal and cancer tissues typically demonstrates strong nuclear staining in neuroendocrine tumor types while the majority of non neuroendocrine tissues remain negative. These tissue array data reinforce the value of INSM1 as a nuclear marker of neuroendocrine differentiation and support its use in immunohistochemistry-based tumor classification studies.

INSM1 Antibody for IHC (clone MSVA-456R) is a recombinant rabbit monoclonal antibody developed to produce consistent nuclear staining in immunohistochemistry applications. When used on formalin-fixed tissue sections, staining typically appears as distinct nuclear HRP-DAB signal in neuroendocrine cells and tumors, enabling clear visualization of neuroendocrine differentiation in both individual tissue sections and large tissue microarray analyses.

Application Notes

1. Optimal dilution of the INSM1 Antibody for IHC should be determined by the researcher.

2. This INSM1/Insulinoma-associated 1 antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 81-125) corresponding to the N-terminus of human INSM1 was used as the immuongen for the INSM1/Insulinoma-associated 1 antibody.

Storage

INSM1/Insulinoma-associated 1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

Insulinoma-associated 1 antibody, IA-1 antibody, Zinc finger protein INSM1 antibody, Insulinoma-associated transcription

factor 1 antibody