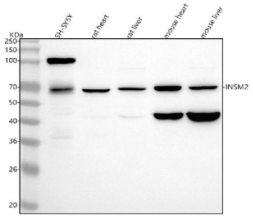
INSM2 Antibody / Insulinoma-associated protein 2 (FY13041)

Catalog No.	Formulation	Size
FY13041	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q96T92
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This INSM2 antibody is available for research use only.



Western blot analysis of INSM2 using anti-INSM2 antibody. Lane 1: human SH-SY5Y whole cell lysates, Lane 2: rat heart tissue lysates, Lane 3: rat liver tissue lysates, Lane 4: mouse heart tissue lysates, Lane 5: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-INSM2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Western blot of INSM2 across human SH-SY5Y cells and rodent tissues. The antibody detects a predominant band between ~62-70 kDa, slightly above the calculated ~59 kDa (566 aa) and consistent with published INSM2 immunoblots reporting ~60-70 kDa. A recurrent ~45 kDa band is stronger in mouse tissues and may reflect a truncated/alternative isoform or limited proteolysis.

Description

INSM2 antibody detects Insulinoma-associated protein 2, a zinc finger transcriptional regulator implicated in neuroendocrine differentiation, metabolic regulation, and pancreatic development. The UniProt recommended name is Insulinoma-associated protein 2 (INSM2). This nuclear protein belongs to the INSM family of transcriptional repressors, which also includes INSM1, and contributes to neuronal and endocrine lineage specification through transcriptional control of differentiation-related genes.

Functionally, INSM2 antibody identifies a 566-amino-acid nuclear protein characterized by two C2H2-type zinc finger domains responsible for DNA binding. INSM2 functions primarily as a transcriptional repressor by interacting with chromatin modifiers such as histone deacetylases (HDACs) and corepressors, leading to silencing of target genes involved in progenitor proliferation and differentiation timing. Its expression is enriched in neuroendocrine tissues, including pancreatic islets, hypothalamus, and pituitary gland.

The INSM2 gene is located on chromosome 14q32.33 and is transcriptionally regulated by developmental factors that control endocrine and neural specification. During embryogenesis, INSM2 expression marks neuroendocrine progenitors, where it modulates hormone biosynthesis and secretory machinery gene networks. In pancreatic beta cells, INSM2 contributes to insulin production and glucose homeostasis by regulating transcription of genes linked to secretion and vesicle trafficking.

In the central nervous system, INSM2 plays roles in hypothalamic and pituitary differentiation, influencing neuroendocrine circuit formation. Its function overlaps with, but is distinct from, INSM1, with both cooperating to maintain endocrine identity and suppress premature differentiation. In metabolic tissues, INSM2 has been implicated in lipid and glucose metabolism, linking endocrine signaling to energy balance. Emerging studies also associate INSM2 with neuroendocrine tumors, where its upregulation may reflect differentiation status and secretory activity.

INSM2 antibody is widely used in developmental biology, endocrinology, and neurobiology research. It is suitable for western blotting, immunohistochemistry, and immunofluorescence to detect INSM2 expression in neural and endocrine tissues. This antibody supports studies of transcriptional regulation, endocrine cell differentiation, and metabolic gene networks. In translational research, INSM2 serves as a marker for neuroendocrine lineage commitment and tumor differentiation.

Structurally, INSM2 contains zinc finger DNA-binding motifs and nuclear localization signals that enable chromatin association. It functions within transcriptional repressor complexes containing HDAC1/2 and REST corepressors. NSJ Bioreagents provides INSM2 antibody reagents validated for use in transcriptional regulation, neuroendocrine development, and metabolic research.

Application Notes

Optimal dilution of the INSM2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human INSM2 recombinant protein (Position: K11-H529) was used as the immunogen for the INSM2 antibody.

Storage

After reconstitution, the INSM2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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