

IPMK (N-13): sc-104942

BACKGROUND

Inositol polyphosphate multikinase (IPMK) belongs to the inositol phosphokinase (IPK) family and is characterized as having a broad substrate specificity. However, IPMK displays a preference for inositol-1,4,5-trisphosphate (Ins(1,4,5)P₃) and inositol 1,3,4,6-tetrakisphosphate (Ins(1,3,4,6)P₄). IPMK is ubiquitously expressed with the highest expression in skeletal muscle, liver, placenta, lung, peripheral blood leukocytes, kidney, spleen and colon. IPMK is localized to the nucleus, where it may play a role in the regulation of calcium release from intracellular stores and has been implicated as a drug target for cancer therapies. The gene encoding IPMK maps to human chromosome 10, which contains over 800 genes. Notably, disorders linked to genes on chromosome 10 include Cowden syndrome, Cockayne syndrome and Tetrahydrobiopterin deficiency.

REFERENCES

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- Chang, S.C. and Majerus, P.W. 2006. Inositol polyphosphate multikinase regulates inositol 1,4,5,6-tetrakisphosphate. *Biochem. Biophys. Res. Commun.* 339: 209-216.
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CHROMOSOMAL LOCATION

Genetic locus: IPMK (human) mapping to 10q21.1; Ipmk (mouse) mapping to 10 B5.3.

SOURCE

IPMK (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IPMK of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104942 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IPMK (N-13) is recommended for detection of IPMK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IPMK (N-13) is also recommended for detection of IPMK in additional species, including canine, bovine and avian.

Suitable for use as control antibody for IPMK siRNA (h): sc-90569, IPMK siRNA (m): sc-146261, IPMK shRNA Plasmid (h): sc-90569-SH, IPMK shRNA Plasmid (m): sc-146261-SH, IPMK shRNA (h) Lentiviral Particles: sc-90569-V and IPMK shRNA (m) Lentiviral Particles: sc-146261-V.

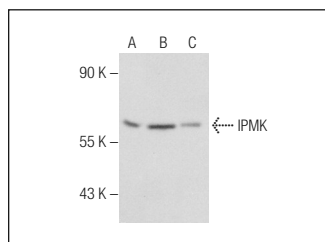
Molecular Weight of IPMK: 47 kDa.

Positive Controls: Hep G2 nuclear extract, MCF7 nuclear extract: sc-2149 or HeLa nuclear extract: sc-2120.

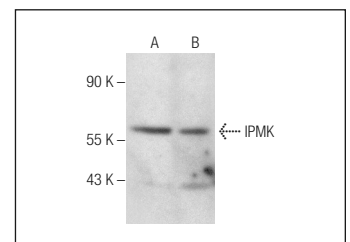
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IPMK (N-13): sc-104942. Western blot analysis of IPMK expression in Hep G2 (A), MCF7 (B) and A549 (C) nuclear extracts.



IPMK (N-13): sc-104942. Western blot analysis of IPMK expression in Hep G2 (A) and HeLa (B) nuclear extracts.

RESEARCH USE

For research use only, not for use in diagnostic procedures.