

IP6K2 (C-17): sc-10425

BACKGROUND

The members of the inositol hexakisphosphate kinase family, IP6K1 and IP6K2, have a high affinity and selectivity for inositol hexakisphosphate (InsP6) as a substrate. IP6K1 and IP6K2 (also designated PiUS) convert InsP6 to PP-InsP5. However, neither kinase demonstrates any catalytic activity with other inositol pyrophosphates. The presence of InsP6, which inhibits serine/threonine protein phosphatases, increases the influx of calcium across the plasma membrane and implies that it may mediate the regulation of Insulin exocytosis. IP6K1 was purified in rat brain extracts. By homology, IP6K1 and IP6K2 were characterized in mouse. IP6K1 displays ATP synthase activity by transferring a phosphate from PP-InsP5 to ADP, which suggests a role for the IP6 kinases as high energy phosphate donors.

REFERENCES

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3. Schell, M.J., Letcher, A.J., Brearley, C.A., Biber, J., Murer, H. and Irvine, R.F. 1999. PiUS (Pi uptake stimulator) is an inositol hexakisphosphate kinase. *FEBS Lett.* 461: 169-172.
4. Barker, C.J. and Berggren, P.O. 1999. Inositol hexakisphosphate and β -cell stimulus-secretion coupling. *Anticancer Res.* 19: 3737-3741.
5. Saiardi, A., Erdjument-Bromage, H., Snowman, A.M., Tempst, P. and Snyder, S.H. 1999. Synthesis of diphosphoinositol pentakisphosphate by a newly identified family of higher inositol polyphosphate kinases. *Curr. Biol.* 9: 1323-1326.

CHROMOSOMAL LOCATION

Genetic locus: IP6K2 (human) mapping to 3p21.31; Ip6k2 (mouse) mapping to 9 F2.

SOURCE

IP6K2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IP6K2 of human origin.

PRODUCT

Each vial contains 100 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-10425 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

IP6K2 (C-17) is recommended for detection of IP6K2 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).

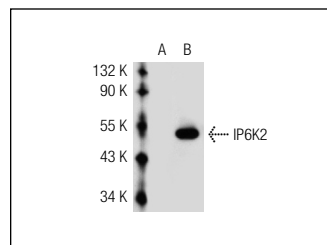
IP6K2 (C-17) is also recommended for detection of IP6K2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IP6K2 siRNA (h): sc-39071, IP6K2 siRNA (m): sc-39072, IP6K2 shRNA Plasmid (h): sc-39071-SH, IP6K2 shRNA Plasmid (m): sc-39072-SH, IP6K2 shRNA (h) Lentiviral Particles: sc-39071-V and IP6K2 shRNA (m) Lentiviral Particles: sc-39072-V.

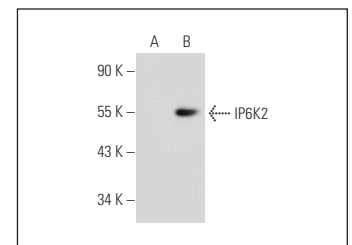
Molecular Weight of IP6K2 isoforms: 49/11/8 kDa.

Positive Controls: IP6K2 (m): 293T Lysate: sc-121094, IP6K2 (h2): 293T Lysate: sc-117070 or rat cerebellum extract: sc-2398.

DATA



IP6K2 (C-17): sc-10425. Western blot analysis of IP6K2 expression in non-transfected: sc-117752 (A) and human IP6K2 transfected: sc-117070 (B) 293T whole cell lysates.



IP6K2 (C-17): sc-10425. Western blot analysis of IP6K2 expression in non-transfected: sc-117752 (A) and mouse IP6K2 transfected: sc-121094 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
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Try **IP6K2 (E-3): sc-390895** or **IP6K2 (G-9): sc-373770**, our highly recommended monoclonal alternatives to IP6K2 (C-17).