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IP6K2 (m): 293T Lysate: sc-121094

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. 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.
4. 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.
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CHROMOSOMAL LOCATION

Genetic locus: Ip6k2 (mouse) mapping to 9 F2.

PRODUCT

IP6K2 (m): 293T Lysate represents a lysate of mouse IP6K2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

IP6K2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive IP6K2 antibodies. Recommended use: 10-20 μ l per lane.

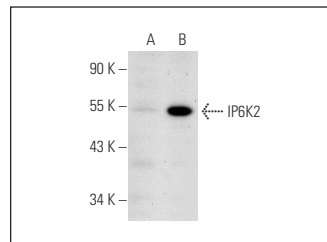
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IP6K2 (4F10): sc-130012 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse IP6K2 expression in IP6K2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



IP6K2 (4F10): sc-130012. Western blot analysis of IP6K2 expression in non-transfected: sc-117752 (A) and mouse IP6K2 transfected: sc-121094 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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