SANTA CRUZ BIOTECHNOLOGY, INC.

Phd (m2): 293T Lysate: sc-122529

BACKGROUND

Phosducin is a phototransducing protein that may participate in the feedback regulation of visual phototransduction or in the integration of photoreceptor metabolism. The human phosducin gene maps to chromosome 1q25-q31.1 and encodes a 246 amino acid protein, also designated Phd. Phosducin is primarily expressed in the retina and the pineal gland, while lower levels are present in tissues such as liver, spleen, striated muscle and the brain. Retinal phosducin is found exclusively in the outer and inner segments of photoreceptor cells, including the synaptic and nuclear layers. Phosducin modulates the phototransduction cascade through high affinity binding and sequestration of $G_{\beta/\gamma}$ subunits of heterotrimeric G proteins. Neutralization of $G_{\beta/\gamma}$ by phosducin inhibits G protein-mediated signaling, since G_{α} is unable to reassemble with $G_{\beta/\gamma}$ and provide a functional G protein trimer ($G_{\alpha/\beta/\gamma}$). In addition, phosducin can effectively slow down the mechanism of internalization of G protein-coupled opioid receptors.

REFERENCES

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3. Savage, J.R., McLaughlin, J.N., Skiba, N.P., Hamm, H.E., and Willardson, B.M. 2000. Functional roles of the two domains of phosducin and phosducin-like protein. J. Biol. Chem. 275: 30399-30407.
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CHROMOSOMAL LOCATION

Genetic locus: Pdc (mouse) mapping to 1 G1.

PRODUCT

Phd (m): 293T Lysate represents a lysate of mouse Phd transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

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

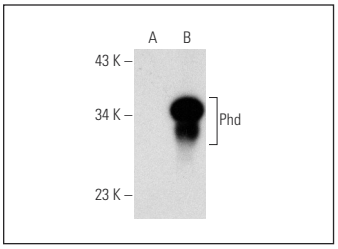
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Phd (G-7): sc-271769 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Phd expression in Phd 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



Phd (G-7): sc-271769. Western blot analysis of Phd expression in non-transfected: sc-117752 (**A**) and mouse Phd transfected: sc-122529 (**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.