SANTA CRUZ BIOTECHNOLOGY, INC.

# palladin (E-6): sc-515799

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Palladin, also known as PALLD, PNCA1 or SIH002, is a 1,383 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains 5 immunoglobulin (Ig)-like domains. Expressed as several alternatively spliced isoforms that are found in kidney, prostate, ovary and colon, palladin functions as a cytoskeletal protein that is required both for the organization of the Actin cytoskeleton, as well as for the establishment of proper cell motility, cell adhesion and cell-matrix interactions. Palladin interacts with Eps8, LASP-1 and VASP and may also play a role in cytoskeletal scaffolding and Actin remodeling. In response to DNA damage, palladin is subject to phosphorylation on select serine residues. Defects in the gene encoding palladin may increase genetic susceptibility to pancreatic cancer, strongly suggesting a role for palladin in tumorigenesis.

## REFERENCES


1. Parast, M.M. and Otey, C.A. 2000. Characterization of palladin, a novel protein localized to stress fibers and cell adhesions. J. Cell Biol. 150: 643-656.
2. Mykkänen, O.M., et al. 2001. Characterization of human palladin, a microfilament-associated protein. Mol. Biol. Cell 12: 3060-3073.
3. Eberle, M.A., et al. 2002. A new susceptibility locus for autosomal dominant pancreatic cancer maps to chromosome 4q32-34. Am. J. Hum. Genet. 70: 1044-1048.
4. Moriyama, K. and Bonifacino, J.S. 2002. Pallidin is a component of a multi-protein complex involved in the biogenesis of lysosome-related organelles. Traffic 3: 666-677.
5. Rönty, M., et al. 2004. Molecular analysis of the interaction between palladin and α-actinin. FEBS Lett. 566: 30-34.
6. Rönty, M., et al. 2005. Involvement of palladin and α-actinin in targeting of the Abl/Arg kinase adaptor ArgBP2 to the Actin cytoskeleton. Exp. Cell Res. 310: 88-98.
7. Boukhelifa, M., et al. 2006. The proline-rich protein palladin is a binding partner for profilin. FEBS J. 273: 26-33.


## CHROMOSOMAL LOCATION

Genetic locus: PALLD (human) mapping to 4q32.3; Palld (mouse) mapping to 8 B3.1.

## SOURCE

palladin (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1107-1136 within an internal region of palladin of human origin.

## PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

palladin (E-6) is recommended for detection of palladin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for palladin siRNA (h): sc-88986, palladin siRNA (m): sc-151999, palladin shRNA Plasmid (h): sc-88986-SH, palladin shRNA Plasmid (m): sc-151999-SH, palladin shRNA (h) Lentiviral Particles: sc-88986-V and palladin shRNA (m) Lentiviral Particles: sc-151999-V.

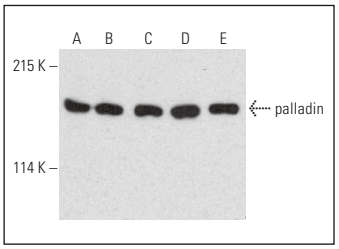
Molecular Weight of palladin: 140 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, Sol8 cell lysate: sc-2249 or L8 cell lysate: sc-3807.

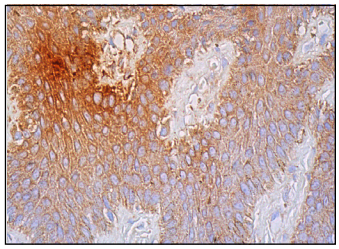
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




palladin (E-6): sc-515799. Western blot analysis of palladin expression in 3611-RF (**A**), Sol8 (**B**), L8 (**C**), AT-3 (**D**) and RIN-m5F (**E**) whole cell lysates.



palladin (E-6): sc-515799. Immunoperoxidase staining of formalin fixed, paraffin-embedded human vulva/anal skin tissue showing cytoplasmic staining of epidermal cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

## SELECT PRODUCT CITATIONS


1. Akdaş, E.Y., et al. 2023. miR96- and miR182-driven regulation of cytoskeleton results in inhibition of glioblastoma motility. Cytoskeleton 80: 367-381.


## STORAGE

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