SANTA CRUZ BIOTECHNOLOGY, INC.

pescadillo (H-10): sc-166300

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The deduced 588 amino acid pescadillo protein (also designated PES1) is the human homolog of zebrafish pescadillo and shows 74% sequence identity to the zebrafish sequence. During the first three days of zebrafish development, pescadillo is highly expressed, but no expression is observed in any adult tissue except the ovary. The mouse pescadillo sequence contains a BRCT (breast cancer C-terminal) domain, originally identified in BRCA1, a p53-binding protein. In mouse tissue, pescadillo is ubiquitiously expressed with highest levels of expression in adult and fetal liver, followed by adult kidney and testis; the lowest expression is found in skeletal muscle. Pescadillo upregulation occurs in human breast carcinoma cells and in primary glioblastoma cells. Proliferation only occurs in HeLa cells that express pescadillo.

REFERENCES

1. Allende, M.L., et al. 1997. Insertional mutagenesis in zebrafish identifies two novel genes, pescadillo and dead eye, essential for embryonic development. Genes Dev. 10: 3141-3155.
2. Dunham, I., et al. 1999. The DNA sequence of human chromosome 22. Nature 402: 489-495.

CHROMOSOMAL LOCATION

Genetic locus: PES1 (human) mapping to 22q12.2; Pes1 (mouse) mapping to 11 A1.

SOURCE

pescadillo (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 399-427 near the C-terminus of pescadillo of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-166300 X, 200 µg/0.1 ml.

pescadillo (H-10) is available conjugated to agarose (sc-166300 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166300 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166300 PE), fluorescein (sc-166300 FITC), Alexa Fluor® 488 (sc-166300 AF488), Alexa Fluor® 546 (sc-166300 AF546), Alexa Fluor® 594 (sc-166300 AF594) or Alexa Fluor® 647 (sc-166300 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166300 AF680) or Alexa Fluor® 790 (sc-166300 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166300 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

pescadillo (H-10) is recommended for detection of pescadillo isoforms 1 and 2 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).

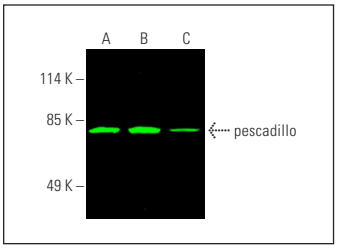
Suitable for use as control antibody for pescadillo siRNA (h): sc-61328, pescadillo siRNA (m): sc-61329, pescadillo shRNA Plasmid (h): sc-61328-SH, pescadillo shRNA Plasmid (m): sc-61329-SH, pescadillo shRNA (h) Lentiviral Particles: sc-61328-V and pescadillo shRNA (m) Lentiviral Particles: sc-61329-V.

pescadillo (H-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

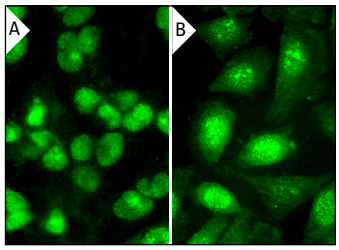
Molecular Weight of pescadillo: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HCT-116 whole cell lysate: sc-364175 or SW480 cell lysate: sc-2219.

DATA



pescadillo (H-10): sc-166300. Near-infrared western blot analysis of pescadillo expression in HeLa (**A**), SW480 (**B**) and HCT-116 (**C**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



pescadillo (H-10): sc-166300. Immunofluorescence staining of formalin-fixed Hep G2 (**A**) and SW480 (**B**) cells showing nuclear and nucleolar localization.

SELECT PRODUCT CITATIONS

1. Cheng, L., et al. 2019. PES1 is a critical component of telomerase assembly and regulates cellular senescence. Sci. Adv. 5: eaav1090.
2. Chen, B., et al. 2020. The long noncoding RNA CCAT2 induces chromosomal instability through BOP1-AURKB signaling. Gastroenterology 159: 2146-2162.e33.
3. Wang, R., et al. 2021. Nonradioactive direct telomerase activity detection using biotin-labeled primers. J. Clin. Lab. Anal. 35: e23800.
4. Zhou, J., et al. 2023. Overexpression of hepatic pescadillo 1 in obesity induces lipid dysregulation by inhibiting autophagy. Transl. Res. E-published.

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.