SANTA CRUZ BIOTECHNOLOGY, INC.

pescadillo (G-11): sc-515273

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. 1996. 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.
3. Haque, J., et al. 2001. The murine Pes1 gene encodes a nuclear protein containing a BRCT domain. Genomics 70: 201-210.
4. Kinoshita, Y., et al. 2001. Pescadillo, a novel cell cycle regulatory protein abnormally expressed in malignant cells. J. Biol. Chem. 276: 6656-6665.
5. Lerch-Gaggl, A., et al. 2002. Pescadillo is essential for nucleolar assembly, ribosome biogenesis, and mammalian cell proliferation. J. Biol. Chem. 277: 45347-45355.
6. Maiorana, A., et al. 2004. Role of pescadillo in the transformation and immortalization of mammalian cells. Oncogene 23: 7116-7124.
7. Killian, A., et al. 2004. Inactivation of the RRB1-pescadillo pathway involved in ribosome biogenesis induces chromosomal instability. Oncogene 23: 8597-8602.

CHROMOSOMAL LOCATION

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

SOURCE

pescadillo (G-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 364-383 within an internal region of pescadillo of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-515273 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-515273 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

pescadillo (G-11) 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 (G-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

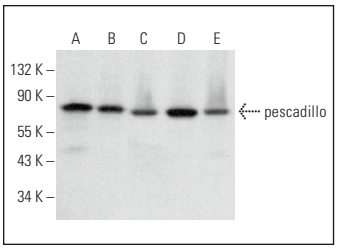
Molecular Weight of pescadillo: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SW480 cell lysate: sc-2219 or PC-12 cell lysate: sc-2250.

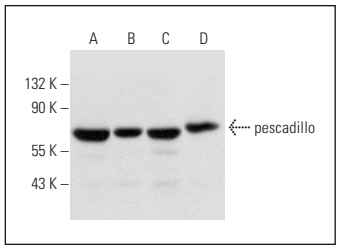
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



pescadillo (G-11): sc-515273. Western blot analysis of pescadillo expression in PC-12 (**A**), Neuro-2A (**B**), Caco-2 (**C**), A549 (**D**) and AMJ2-C8 (**E**) whole cell lysates.



pescadillo (G-11): sc-515273. Western blot analysis of pescadillo expression in HeLa (**A**), T24 (**B**), SW480 (**C**) and PC-12 (**D**) whole cell lysates.

STORAGE

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

RESEARCH USE

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