SANTA CRUZ BIOTECHNOLOGY, INC.

# PELO (F-4): sc-393418

## BACKGROUND

PELO (pelota homolog), also known as CGI-17 or PRO1770, is a 385 amino acid nuclear and cytoplasmic protein that belongs to the eukaryotic release factor 1 family and the pelota subfamily. Evolutionary conserved, PELO may be involved in the regulation of cell proliferation and stem cell self-renewal, and is suggested to be required for normal chromosome segregation during cell division and genomic stability. PELO may posses ribonuclease activity and has the ability to recognize stalled ribosomes, thereby triggering endonucleolytic cleavage of mRNA, a mechanism that releases non-functional ribosomes and degrades damaged mRNAs. PELO is ubiquitously expressed and utilizes divalent metal cations as cofactors. PELO may be essential for spermatogenesis, cell cycle control and in meiotic cell division. PELO is encoded by a gene located on human chromosome 5q11.2.

## REFERENCES


1. Eberhart, C.G., et al. 1995. The pelota locus encodes a protein required for meiotic cell division: an analysis of $G_2$/M arrest in *Drosophila* spermatogenesis. Development 121: 3477-3486.
2. Ragan, M.A., et al. 1996. An archaebacterial homolog of pelota, a meiotic cell division protein in eukaryotes. FEMS Microbiol. Lett. 144: 151-155.
3. Shamsadin, R., et al. 2000. Molecular cloning, expression and chromosome location of the human pelota gene PELO. Cytogenet. Cell Genet. 90: 75-78.
4. Shamsadin, R., et al. 2002. Mouse pelota gene (PELO): cDNA cloning, genomic structure, and chromosomal localization. Cytogenet. Genome Res. 97: 95-99.


## CHROMOSOMAL LOCATION

Genetic locus: PELO (human) mapping to 5q11.2; Pelo (mouse) mapping to 13 D2.2.

## SOURCE

PELO (F-4) is a mouse monoclonal antibody raised against amino acids 1-231 mapping at the N-terminus of PELO 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.

PELO (F-4) is available conjugated to agarose (sc-393418 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393418 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393418 PE), fluorescein (sc-393418 FITC), Alexa Fluor® 488 (sc-393418 AF488), Alexa Fluor® 546 (sc-393418 AF546), Alexa Fluor® 594 (sc-393418 AF594) or Alexa Fluor® 647 (sc-393418 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393418 AF680) or Alexa Fluor® 790 (sc-393418 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

PELO (F-4) is recommended for detection of PELO 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 PELO siRNA (h): sc-91932, PELO siRNA (m): sc-152161, PELO shRNA Plasmid (h): sc-91932-SH, PELO shRNA Plasmid (m): sc-152161-SH, PELO shRNA (h) Lentiviral Particles: sc-91932-V and PELO shRNA (m) Lentiviral Particles: sc-152161-V.

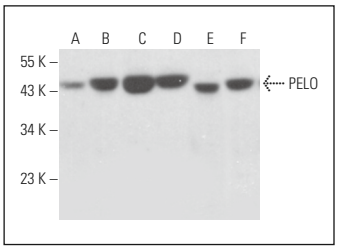
Molecular Weight of PELO: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, human stomach extract: sc-363780 or mouse thymus extract: sc-2406.

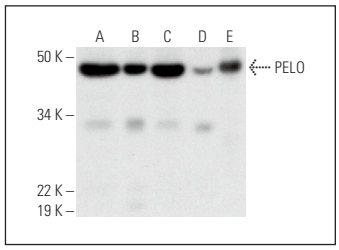
## RECOMMENDED SUPPORT REAGENTS

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




PELO (F-4): sc-393418. Western blot analysis of PELO expression in EOC 20 (**A**), C6 (**B**), IMR-32 (**C**) and SH-SY5Y (**D**) whole cell lysates and mouse postnatal brain (**E**) and rat brain (**F**) tissue extracts.




PELO (F-4): sc-393418. Western blot analysis of PELO expression in HeLa (**A**), HEK293T (**B**) and A-375 (**C**) whole cell lysates and human stomach (**D**) and mouse thymus (**E**) tissue extracts.

## SELECT PRODUCT CITATIONS


1. Samanfar, B., et al. 2017. The sensitivity of the yeast, *Saccharomyces cerevisiae,* to acetic acid is influenced by DOM34 and RPL36A. PeerJ 5: e4037.


## RESEARCH USE

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