SANTA CRUZ BIOTECHNOLOGY, INC.

# PLEKHM3 (A-2): sc-393066

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

PLEKHM3 (pleckstrin homology domain containing, family M, member 3), also known as DAPR or PLEKHM1L (pleckstrin homology domain containing, family M, member 1-like), is a 761 amino acid phosphoprotein that contains two pleckstrin homology (PH) domains and one phorbol-ester/DAG-type zinc finger. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, PLEKHM3 exists as three alternatively spliced isoforms that participate in metal ion binding. The gene that encodes PLEKHM3 maps to human chromosome 2q33.3. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes. Chromosome 2 contains a probable vestigial second centromere, as well as vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 formed as a result of an ancient fusion of two ancestral chromosomes, which are still present in modern day apes.

## REFERENCES


1. IJdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
4. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. Dermatology 215: 155-159.


## CHROMOSOMAL LOCATION

Genetic locus: PLEKHM3 (human) mapping to 2q33.3; Plekhm3 (mouse) mapping to 1 C2.

## SOURCE

PLEKHM3 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-18 at the N-terminus of PLEKHM3 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.

PLEKHM3 (A-2) is available conjugated to agarose (sc-393066 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393066 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393066 PE), fluorescein (sc-393066 FITC), Alexa Fluor® 488 (sc-393066 AF488), Alexa Fluor® 546 (sc-393066 AF546), Alexa Fluor® 594 (sc-393066 AF594) or Alexa Fluor® 647 (sc-393066 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393066 AF680) or Alexa Fluor® 790 (sc-393066 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

PLEKHM3 (A-2) is recommended for detection of PLEKHM3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PLEKHM3 (A-2) is also recommended for detection of PLEKHM3 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for PLEKHM3 siRNA (m): sc-152322, PLEKHM3 shRNA Plasmid (m): sc-152322-SH and PLEKHM3 shRNA (m) Lentiviral Particles: sc-152322-V.

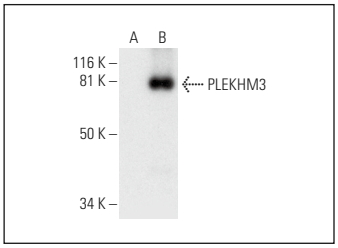
Molecular Weight of PLEKHM3 isoforms 1/2/3: 87/82/60 kDa.

Positive Controls: PLEKHM3 (m): 293T Lysate: sc-122637.

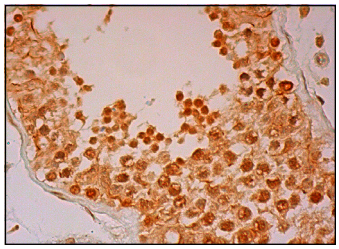
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA




PLEKHM3 (A-2): sc-393066. Western blot analysis of PLEKHM3 expression in non-transfected: sc-117752 (**A**) and mouse PLEKHM3 transfected: sc-122637 (**B**) 293T whole cell lysates.



PLEKHM3 (A-2): sc-393066. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts and Leydig cells.

## 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.