SANTA CRUZ BIOTECHNOLOGY, INC.

# EPB41L5 (F-9): sc-515440

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

FERM domains are roughly 150 amino acids in length and are found in a number of cytoskeletal-associated proteins such as Ezrin, Radixin, Moesin and 4.1 (erythrocyte membrane protein band 4.1), where they provide a link between cytoskeletal signals and membrane dynamics. EPB41L5 (erythrocyte membrane protein band 4.1 like 5), also known as BE37 or YMO1, is a 733 amino acid cytoplasmic protein that contains one FERM domain, which it uses to bind CRB1 (crumbs homolog 1). EPB41L5 is a homolog of zebrafish "mosaic eyes" (moe), and is widely expressed but found at highest levels in ovary, kidney and brain, and is known to colocalize with β-catenin. EPB41L5 may participate in tight junction positioning during the establishment of epithelial cell polarity, and exists as four alternatively spliced isoforms that are encoded by a gene located on human chromosome 2q14.2.

## REFERENCES


1. Jensen, A.M., et al. 2001. Mosaic eyes: a zebrafish gene required in pigmented epithelium for apical localization of retinal cell division and lamination. Development 128: 95-105.
2. Medina, E., et al. 2002. Role of the Crumbs complex in the regulation of junction formation in *Drosophila* and mammalian epithelial cells. Biol. Cell 94: 305-313.
3. Jensen, A.M., et al. 2004. Zebrafish mosaic eyes is a novel FERM protein required for retinal lamination and retinal pigmented epithelial tight junction formation. Curr. Biol. 14: 711-717.
4. Hsu, Y.C., et al. 2006. Mosaic eyes is a novel component of the Crumbs complex and negatively regulates photoreceptor apical size. Development 133: 4849-4859.
5. Gosens, I., et al. 2007. FERM protein EPB41L5 is a novel member of the mammalian CRB-MPP5 polarity complex. Exp. Cell Res. 313: 3959-3970.


## CHROMOSOMAL LOCATION

Genetic locus: EPB41L5 (human) mapping to 2q14.2; Epb41l5 (mouse) mapping to 1 E2.3.

## SOURCE

EPB41L5 (F-9) is a mouse monoclonal antibody raised against amino acids 1-50 mapping at the N-terminus of EPB41L5 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.

EPB41L5 (F-9) is available conjugated to agarose (sc-515440 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515440 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515440 PE), fluorescein (sc-515440 FITC), Alexa Fluor® 488 (sc-515440 AF488), Alexa Fluor® 546 (sc-515440 AF546), Alexa Fluor® 594 (sc-515440 AF594) or Alexa Fluor® 647 (sc-515440 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515440 AF680) or Alexa Fluor® 790 (sc-515440 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

EPB41L5 (F-9) is recommended for detection of EPB41L5 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 SURF-6 siRNA (h): sc-92816, EPB41L5 siRNA (m): sc-144904, SURF-6 shRNA Plasmid (h): sc-92816-SH, EPB41L5 shRNA Plasmid (m): sc-144904-SH, SURF-6 shRNA (h) Lentiviral Particles: sc-92816-V and EPB41L5 shRNA (m) Lentiviral Particles: sc-144904-V.

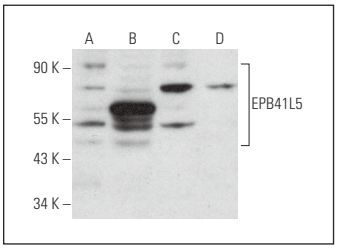
Molecular Weight of EPB41L5 isoform 1/2/3/4: 82/58/82/76 kDa.

Positive Controls: A549 cell lysate: sc-2413, ES-2 cell lysate: sc-24674 or HeLa whole cell lysate: sc-2200.

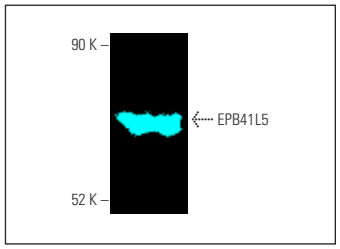
## RECOMMENDED SUPPORT REAGENTS

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




EPB41L5 (F-9): sc-515440. Western blot analysis of EPB41L5 expression in A549 (**A**), MCF7 (**B**), ES-2 (**C**) and HeLa (**D**) whole cell lysates.




EPB41L5 (F-9): sc-515440. Fluorescent western blot analysis of EPB41L5 expression in MCF7 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 647: sc-516179.

## 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.