SANTA CRUZ BIOTECHNOLOGY, INC.

DAAM2 (E-1): sc-515129

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DAAM2 (disheveled associated activator of morphogenesis 2), also known as KIAA0381, is a widely expressed 1,068 amino acid protein that contains one DAD domain, one FH1 domain, one FH2 domain and one GBD domain, through which it may play a role in Wnt/Frizzled-associated signaling events. The gene encoding DAAM2 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 4: 141-150.
2. Habas, R., et al. 2001. Wnt/Frizzled activation of Rho regulates vertebrate gastrulation and requires a novel Formin homology protein DAAM1. Cell 107: 843-854.
3. Katoh, M. and Katoh, M. 2003. Identification and characterization of human DAAM2 gene in silico. Int. J. Oncol. 22: 915-920.

CHROMOSOMAL LOCATION

Genetic locus: DAAM2 (human) mapping to 6p21.2; Daam2 (mouse) mapping to 17 C.

SOURCE

DAAM2 (E-1) is a mouse monoclonal antibody raised against amino acids 843-897 mapping near the C-terminus of DAAM2 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.

DAAM2 (E-1) is available conjugated to agarose (sc-515129 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515129 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515129 PE), fluorescein (sc-515129 FITC), Alexa Fluor® 488 (sc-515129 AF488), Alexa Fluor® 546 (sc-515129 AF546), Alexa Fluor® 594 (sc-515129 AF594) or Alexa Fluor® 647 (sc-515129 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515129 AF680) or Alexa Fluor® 790 (sc-515129 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

DAAM2 (E-1) is recommended for detection of DAAM2 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 DAAM2 siRNA (h): sc-62192, DAAM2 siRNA (m): sc-62193, DAAM2 shRNA Plasmid (h): sc-62192-SH, DAAM2 shRNA Plasmid (m): sc-62193-SH, DAAM2 shRNA (h) Lentiviral Particles: sc-62192-V and DAAM2 shRNA (m) Lentiviral Particles: sc-62193-V.

Molecular Weight (predicted) of DAAM2: 123 kDa.

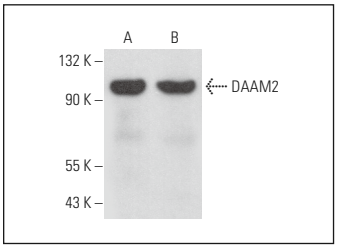
Molecular Weight (observed) of DAAM2: 82 kDa.

Positive Controls: human ovary extract: sc-363769, mouse skeletal muscle extract: sc-364250 or rat skeletal muscle extract: sc-364810.

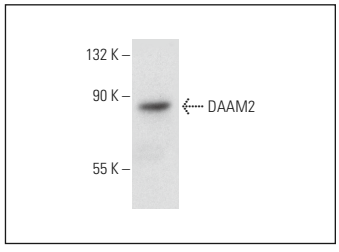
RECOMMENDED SUPPORT REAGENTS

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



DAAM2 (E-1): sc-515129. Western blot analysis of DAAM2 expression in mouse skeletal muscle (**A**) and rat skeletal muscle (**B**) tissue extracts.



DAAM2 (E-1): sc-515129. Western blot analysis of DAAM2 expression in human ovary tissue extract.

SELECT PRODUCT CITATIONS

1. Schneider, R., et al. 2020. DAAM2 variants cause nephrotic syndrome via Actin dysregulation. Am. J. Hum. Genet. 107: 1113-1128.
2. Colozza, G., et al. 2023. Intestinal paneth cell differentiation relies on asymmetric regulation of Wnt signaling by Daam1/2. Sci. Adv. 9: eadh9673.

RESEARCH USE

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