SANTA CRUZ BIOTECHNOLOGY, INC.

DnaJA2 (7): sc-136515

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The Power to Question

BACKGROUND

The DnaJ family is one of the largest of all the chaperone families and has evolved with diverse cellular localization and functions. The presence of the J domain defines a protein as a member of the DnaJ family. DnaJ heat shock induced proteins are from the bacterium *Escherichia coli* and are under the control of the htpR regulatory protein. The DnaJ proteins play a critical role in the HSP 70 chaperone machine by interacting with HSP 70 to stimulate ATP hydrolysis. The proteins contain cysteine rich regions that are composed of zinc fingers that form a peptide binding domain responsible for the chaperone function. DnaJ proteins are important mediators of proteolysis and are involved in the regulation of protein degradation, exocytosis and endocytosis. DnaJA2 (DnaJ homolog subfamily A member 2), also known as HIRA-interacting protein 4 or cell cycle progression restoration gene 3 protein, contains one CR-type zinc finger and is a co-chaperone of HSC 70.

REFERENCES

1. Saito, H. and Uchida, H. 1978. Organization and expression of the DnaJ and DnaK genes of *Escherichia coli* K12. Mol. Gen. Genet. 164: 1-8.
2. Georgopoulos, C.P., et al. 1980. Identification of the *E. coli* DnaJ gene product. Mol. Gen. Genet. 178: 583-588.

CHROMOSOMAL LOCATION

Genetic locus: DNAJA2 (human) mapping to 16q11.2; Dnaja2 (mouse) mapping to 8 C3.

SOURCE

DnaJA2 (7) is a mouse monoclonal antibody raised against amino acids 294-412 of DnaJA2 of mouse 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.

DnaJA2 (7) is available conjugated to agarose (sc-136515 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136515 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

DnaJA2 (7) is recommended for detection of DnaJA2 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for DnaJA2 siRNA (h): sc-93101, DnaJA2 siRNA (m): sc-143089, DnaJA2 shRNA Plasmid (h): sc-93101-SH, DnaJA2 shRNA Plasmid (m): sc-143089-SH, DnaJA2 shRNA (h) Lentiviral Particles: sc-93101-V and DnaJA2 shRNA (m) Lentiviral Particles: sc-143089-V.

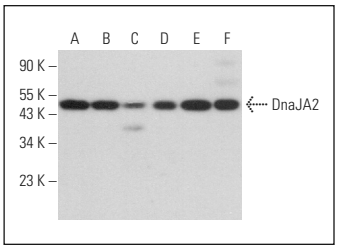
Molecular Weight of DnaJA2: 46 kDa.

Positive Controls: DnaJA2 (h2): 293T Lysate: sc-371449, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

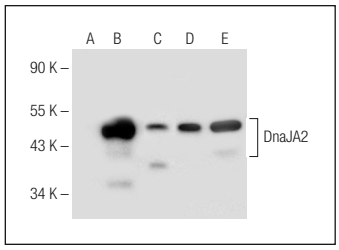
RECOMMENDED SUPPORT REAGENTS

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).

DATA



DnaJA2 (7): sc-136515. Western blot analysis of DnaJA2 expression in K-562 (**A**), PC-3 (**B**), Hep G2 (**C**), EOC 20 (**D**) and NIH/3T3 (**E**) whole cell lysates and rat testis tissue extract (**F**).



DnaJA2 (7): sc-136515. Western blot analysis of DnaJA2 expression in non-transfected 293T: sc-117752 (**A**), human DnaJA2 transfected 293T: sc-371449 (**B**), A-431 (**C**), HeLa (**D**) and K-562 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Xiao, Y., et al. 2016. Characterization of the interactome of the porcine reproductive and respiratory syndrome virus (PRRSV) NSP2 protein reveals the hyper variable region as a binding platform for association with 14-3-3 proteins. J. Proteome Res. 15: 1388-1401.
2. Dong, S., et al. 2016. Determination of the interactome of non-structural protein12 from highly pathogenic porcine reproductive and respiratory syndrome virus with host cellular proteins using high throughput proteomics and identification of HSP70 as a cellular factor for virus replication. J. Proteomics 146: 58-69.
3. García-Dorival, I., et al. 2016. Elucidation of the cellular interactome of Ebola virus nucleoprotein and identification of therapeutic targets. J. Proteome Res. 15: 4290-4303.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.