SANTA CRUZ BIOTECHNOLOGY, INC.

IQSEC2 (D-14): sc-168198

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The Power to Question

BACKGROUND

IQSEC2 (IQ motif and SEC7 domain-containing protein 2) is a 1,478 amino acid protein that belongs to the BRAG family and contains one IQ domain, one PH domain and a SEC7 domain. Localizing to the cytoplasm, IQSEC2 is expressed in brain, kidney and small intestine, with weaker levels of expression in placenta, pancreas, ovary, prostate and liver. IQSEC2 is a component of the postsynaptic density at excitatory synapses, and interacts with ARF family members as a guanine nucleotide exchange factor. Through the activation of ARF substrates, IQSEC2 may play a crucial role in cytoskeletal and synaptic organization. The gene encoding IQSEC2 maps to the human X chromosome. Defects to the IQSEC2 gene have been linked to mental retardation X-linked type 1 (MRX1), a condition characterized by decreased intellectual function. IQSEC2 exists as three isoforms due to alternative splicing events.

REFERENCES

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3. Shoubridge, C., Tarpey, P.S., Abidi, F., Ramsden, S.L., Rujirabanjerd, S., Murphy, J.A., Boyle, J., Shaw, M., Gardner, A., Proos, A., Puusepp, H., Raymond, F.L., Schwartz, C.E., Stevenson, R.E., Turner, G., Field, M., Walikonis, R.S., et al. 2010. Mutations in the guanine nucleotide exchange factor gene IQSEC2 cause nonsyndromic intellectual disability. Nat. Genet. 42: 486-488.
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CHROMOSOMAL LOCATION

Genetic locus: IQSEC2 (human) mapping to Xp11.22; Iqsec2 (mouse) mapping to X F3.

SOURCE

IQSEC2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IQSEC2 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168198 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IQSEC2 (D-14) is recommended for detection of IQSEC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with IQSEC1 or IQSEC3.

IQSEC2 (D-14) is also recommended for detection of IQSEC2 in additional species, including equine and canine.

Suitable for use as control antibody for IQSEC2 siRNA (h): sc-91115, IQSEC2 siRNA (m): sc-146278, IQSEC2 shRNA Plasmid (h): sc-91115-SH, IQSEC2 shRNA Plasmid (m): sc-146278-SH, IQSEC2 shRNA (h) Lentiviral Particles: sc-91115-V and IQSEC2 shRNA (m) Lentiviral Particles: sc-146278-V.

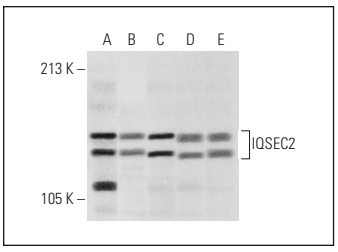
Molecular Weight of IQSEC2: 162 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IQSEC2 (D-14): sc-168198. Western blot analysis of IQSEC2 expression in HeLa (**A**), Jurkat (**B**), K-562 (**C**), Hep G2 (**D**) and MDA-MB-435S (**E**) whole cell lysates.

RESEARCH USE

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