SANTA CRUZ BIOTECHNOLOGY, INC.

# Glutamine-rich 2 (F-4): sc-514279

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Glutamine-rich 2 is a 1,663 amino acid protein that contains almost a 400 amino acid glutamine-rich region, which is possibly involved in protein-protein interactions. There are three isoforms of Glutamine-rich 2 that are produced as a result of alternative splicing events. The gene encoding Glutamine-rich 2 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome.

## REFERENCES


1. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 17. Genet. Test. 2: 357-381.
2. Knight, J., et al. 2003. Human chromosome 17 in essential hypertension. Ann. Hum. Genet. 67: 193-206.
3. Shashi, V., et al. 2003. Ring chromosome 17: phenotype variation by deletion size. Clin. Genet. 64: 361-365.
4. Barbouti, A., et al. 2004. The breakpoint region of the most common isochromosome, i(17q), in human neoplasia is characterized by a complex genomic architecture with large, palindromic, low-copy repeats. Am. J. Hum. Genet. 74: 1-10.
5. Yamamoto, K., et al. 2008. Imatinib resistance in a novel translocation der(17)t(1;17)(q25;p13) with loss of TP53 but without Bcr/Abl kinase domain mutation in chronic myelogenous leukemia. Cancer Genet. Cytogenet. 183: 77-81.


## CHROMOSOMAL LOCATION

Genetic locus: QRICH2 (human) mapping to 17q25.1.

## SOURCE

Glutamine-rich 2 (F-4) is a mouse monoclonal antibody raised against amino acids 1151-1426 mapping within an internal region of Glutamine-rich 2 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.

Glutamine-rich 2 (F-4) is available conjugated to agarose (sc-514279 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514279 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514279 PE), fluorescein (sc-514279 FITC), Alexa Fluor® 488 (sc-514279 AF488), Alexa Fluor® 546 (sc-514279 AF546), Alexa Fluor® 594 (sc-514279 AF594) or Alexa Fluor® 647 (sc-514279 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514279 AF680) or Alexa Fluor® 790 (sc-514279 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

Glutamine-rich 2 (F-4) is recommended for detection of Glutamine-rich 2 of 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 Glutamine-rich 2 siRNA (h): sc-93582, Glutamine-rich 2 shRNA Plasmid (h): sc-93582-SH and Glutamine-rich 2 shRNA (h) Lentiviral Particles: sc-93582-V.

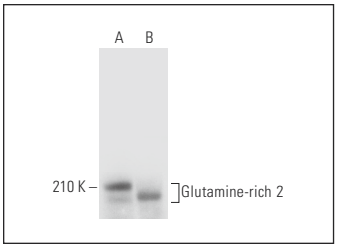
Molecular Weight of Glutamine-rich 2: 181 kDa.

Positive Controls: Hs 181 Tes whole cell lysate: sc-364779 or Jurkat whole cell lysate: sc-2204.

## 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




Glutamine-rich 2 (F-4): sc-514279. Western blot analysis of Glutamine-rich 2 expression in Jurkat (**A**) and Hs 181 Tes (**B**) whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Shen, Y., et al. 2019. Loss-of-function mutations in QRICH2 cause male infertility with multiple morphological abnormalities of the sperm flagella. Nat. Commun. 10: 433.


## 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.