SANTA CRUZ BIOTECHNOLOGY, INC.

# IRSp53 (W-20): sc-50011

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The scaffolding protein Insulin receptor tyrosine kinase substrate p53 (IRSp53), an ubiquitous regulator of the Actin cytoskeleton, mediates filopodia formation under the control of Rho-family GTPases. It is expressed in the cytoplasm and links small membrane-bound G proteins to cytoplasmic effector proteins. IRSp53 comprises a central SH3 domain, which binds to proline-rich regions of a wide range of Actin regulators, and a conserved N-terminal IRSp53/MIM homology domain (IMD) that harbors F-Actin-bundling activity. IRSp53 interacts with atrophin-1, the product of the dentatorubral-pallidoluysian atrophy (DRPLA) gene, which is associated with an autosomal dominant neurodegenerative disease. The IRSp53 protein also interacts with ENAH, BAI1, Eps8, Shank 1, Shank 2, Shank 3, WAVE1, WAVE2, Tiam1 and Dia 1.

## CHROMOSOMAL LOCATION

Genetic locus: BAIAP2 (human) mapping to 17q25.3; Baiap2 (mouse) mapping to 11 E2.

## SOURCE

IRSp53 (W-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IRSp53 of human origin.

## 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-50011 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

IRSp53 (W-20) is recommended for detection of IRSp53 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IRSp53 (W-20) is also recommended for detection of IRSp53 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IRSp53 siRNA (h): sc-60863, IRSp53 siRNA (m): sc-60864, IRSp53 shRNA Plasmid (h): sc-60863-SH, IRSp53 shRNA Plasmid (m): sc-60864-SH, IRSp53 shRNA (h) Lentiviral Particles: sc-60863-V and IRSp53 shRNA (m) Lentiviral Particles: sc-60864-V.

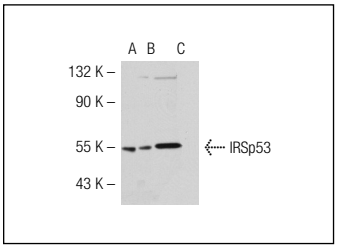
Molecular Weight of IRSp53: 53 kDa.

Positive Controls: IRSp53 (h): 293T Lysate: sc-115292, K-562 whole cell lysate: sc-2203 or mouse brain extract: sc-2253.

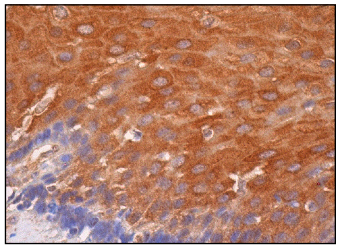
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA




IRSp53 (W-20): sc-50011. Western blot analysis of IRSp53 expression in non-transfected 293T: sc-117752 (**A**), human IRSp53 transfected 293T: sc-115292 (**B**) and K-562 (**C**) whole cell lysates.



IRSp53 (W-20): sc-50011. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

## SELECT PRODUCT CITATIONS

1. Romero, A.M., et al. 2010. Chronic ethanol exposure alters the levels, assembly, and cellular organization of the actin cytoskeleton and microtubules in hippocampal neurons in primary culture. Toxicol. Sci. 18: 602-612.

## RESEARCH USE

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

## PROTOCOLS

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