

# HIP-55 (F-9): sc-398351

## BACKGROUND

Drebrins (developmentally regulated brain proteins) are cytoplasmic proteins that bind F-Actin in the brain and are involved in cell migration, extension of neuronal processes and plasticity of dendrites. HIP-55 (HPK1-interacting protein of 55 kDa), also known as ABP1, SH3P7 or DBNL (drebrin-like), is a 430 amino acid cytoplasmic protein that belongs to the ABP1 family. HIP-55 binds to F-Actin but is not involved in Actin polymerization, capping or bundling. In addition to containing an ADF-H domain, HIP-55 also consists of a SH3 domain, which mediates interaction with SHANK2, SHANK3 and PRAM-1. HIP-55 acts as an Actin-binding adapter protein and as a common effector of antigen receptor-signaling pathways in leukocytes. As a key component of the immunological synapse, HIP-55 regulates T-cell activation by bridging TCRs and the Actin cytoskeleton to gene activation and endocytic processes. HIP-55 is degraded by caspases during apoptosis.

## REFERENCES

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- Han, J., et al. 2005. HIP-55 is important for T cell proliferation, cytokine production, and immune responses. *Mol. Cell. Biol.* 25: 6869-6878.
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## CHROMOSOMAL LOCATION

Genetic locus: DBNL (human) mapping to 7p13; Dbnl (mouse) mapping to 11 A1.

## SOURCE

HIP-55 (F-9) is a mouse monoclonal antibody raised against amino acids 100-186 mapping near the N-terminus of HIP-55 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

HIP-55 (F-9) is recommended for detection of HIP-55 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 HIP-55 siRNA (h): sc-75255, HIP-55 siRNA (m): sc-75256, HIP-55 shRNA Plasmid (h): sc-75255-SH, HIP-55 shRNA Plasmid (m): sc-75256-SH, HIP-55 shRNA (h) Lentiviral Particles: sc-75255-V and HIP-55 shRNA (m) Lentiviral Particles: sc-75256-V.

Molecular Weight of HIP-55: 55 kDa.

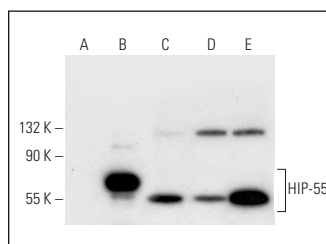
Positive Controls: HIP-55 (h): 293T Lysate: sc-371066, Jurkat whole cell lysate: sc-2204 or Raji whole cell lysate: sc-364236.

## RECOMMENDED SUPPORT REAGENTS

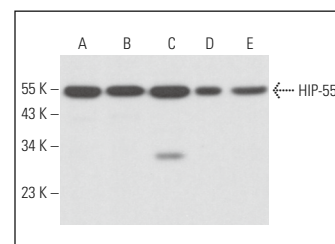
To ensure optimal results, the following support reagents are recommended:

- 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 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



HIP-55 (F-9): sc-398351. Western blot analysis of HIP-55 expression in non-transfected 293T: sc-117752 (A), human HIP-55 transfected 293T: sc-371066 (B), U-698-M (C), Jurkat (D) and Raji (E) whole cell lysates.



HIP-55 (F-9): sc-398351. Western blot analysis of HIP-55 expression in K-562 (A), F9 (B), IB4 (C), A-10 (D) and KNRK (E) whole cell lysates.

## 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.