**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 Shank 2, Shank 3 and PRAM-1. HIP-55 acts as an actin-binding adapter protein and as a common effector 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 Shank 2, Shank 3 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**


**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).


Molecular Weight of HIP-55: 55 kDa.

Positive Controls: HIP-55 (h): 293T Lysate, 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:

1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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 LuminoReagent: sc-2048. 2) Immunoprecipitation: use ProteinA/G PLUS-Agarose: sc-2003(0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG HRP: sc-516102 or m-IgG HRP: sc-516214 and Western Blotting Lumino Reagent: sc-2048. 2) Immunoprecipitation: use ProteinA/G PLUS-Agarose: sc-2003(0.5 ml agarose/2.0 ml).

3) Immunoisolation: use m-IgG HRP: sc-516102 or m-IgG HRP: sc-516214 and Western Blotting Lumino Reagent: sc-2048. 2) Immunoprecipitation: use ProteinA/G PLUS-Agarose: sc-2003(0.5 ml agarose/2.0 ml).

**DATA**

**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 website at www.scbt.com for detailed protocols and support products.

**PRODUCT**

Each vial contains 200 µg IgG2k kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**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.