**BACKGROUND**

One of the largest human proteins, Herc1, also designated p532 or p619, is a 4,861 amino acid protein that contains a variety of functional domains, including WD repeats, RCC1 repeats, β-repeat domains and one HECT domain. Herc1 is ubiquitously expressed in human and mouse tissues and is over-expressed in several human tumor cell lines. It localizes to the cytosol and the Golgi apparatus, where it acts as a guanine nucleotide exchange factor on ARF1 and Rab proteins to mediate membrane trafficking. Herc1 also is involved in proliferation and growth through its interactions with clathrin, M2-pyruvate kinase and TSC2 proteins. Mutations in the TSC2 protein allow for binding to Herc1 in the presence of TSC1, which destabilizes the TSC2 protein. This results in tuberous sclerosis complex (TSC), an autosomal dominant disease characterized by hamartoma formation in various organs.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HERC1 (human) mapping to 15q22.31; Herc1 (mouse) mapping to 9 C.

**SOURCE**

Herc1 (E-12) is a mouse monoclonal antibody raised against amino acids 591-890 mapping near the N-terminus of Herc1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Herc1 (E-12) is recommended for detection of Herc1 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).

Herc1 (E-12) is also recommended for detection of Herc1 in additional species, including equine and porcine.

Suitable for use as control antibody for Herc1 siRNA (h): sc-90102, Herc1 siRNA (m): sc-145943, Herc1 shRNA Plasmid (h): sc-90102-SH, Herc1 shRNA Plasmid (m): sc-145943-SH, Herc1 shRNA (h) Lentiviral Particles: sc-90102-V and Herc1 shRNA (m) Lentiviral Particles: sc-145943-V.

Molecular Weight of Herc1: 532 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

**RECOMMENDED SUPPORT REAGENTS**

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

**DATA**

Herc1 (E-12): sc-393950. Western blot analysis of Herc1 expression in HeLa whole cell lysate.

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