

# CLIP-115 (14): sc-135869

## BACKGROUND

Williams syndrome (WS) is a developmental disorder characterized by cardiovascular problems, dysmorphic features, mental retardation or learning difficulties and several typical behavioral and neurological abnormalities. In Williams syndrome patients, a heterozygous deletion is present in a region on chromosome 7q11.23 (the Williams syndrome critical region), which spans approximately 20 genes. This region comprises the *CYLN2* gene, which encodes the cytoplasmic linker protein of (CLIP-115). CLIP-115 is a microtubule-binding protein that is abundantly expressed in the brain. Mice with haploinsufficiency for the *CYLN2* gene have features similar to that of WS, including mild growth deficiency, brain abnormalities, hippocampal dysfunction and particular deficits in motor coordination.

## REFERENCES

1. Hoogenraad, C.C., et al. 1998. The murine *CYLN2* gene: genomic organization, chromosome localization, and comparison to the human gene that is located within the 7q11.23 Williams syndrome critical region. *Genomics* 53: 348-358.
2. Donnai, D., et al. 2000. Williams syndrome: from genotype through to the cognitive phenotype. *Am. J. Med. Genet.* 97: 164-171.
3. Hoogenraad, C.C., et al. 2002. Targeted mutation of *Cyln2* in the Williams syndrome critical region links CLIP-115 haploinsufficiency to neurodevelopmental abnormalities in mice. *Nat. Genet.* 32: 116-127.
4. Galaburda, A.M., et al. 2003. Williams syndrome. A summary of cognitive, electrophysiological, anatomofunctional, microanatomical and genetic findings. *Rev. Neurol.* 36: S132-S137.
5. Hoogenraad, C.C., et al. 2004. LIMK-1 and CLIP-115: linking cytoskeletal defects to Williams syndrome. *Bioessays* 26: 141-150.
6. Meyer-Lindenberg, A., et al. 2005. Functional, structural, and metabolic abnormalities of the hippocampal formation in Williams syndrome. *J. Clin. Invest.* 115: 1888-1895.
7. Meyer-Lindenberg, A., et al. 2006. Neural mechanisms in Williams syndrome: a unique window to genetic influences on cognition and behaviour. *Nat. Rev. Neurosci.* 7: 380-393.

## CHROMOSOMAL LOCATION

Genetic locus: CLIP2 (human) mapping to 7q11.23; Clip2 (mouse) mapping to 5 G2.

## SOURCE

CLIP-115 (14) is a mouse monoclonal antibody raised against amino acids 801-917 of CLIP-115 of rat origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

CLIP-115 (14) is recommended for detection of CLIP-115 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for CLIP-115 siRNA (h): sc-60475, CLIP-115 siRNA (m): sc-60476, CLIP-115 shRNA Plasmid (h): sc-60475-SH, CLIP-115 shRNA Plasmid (m): sc-60476-SH, CLIP-115 shRNA (h) Lentiviral Particles: sc-60475-V and CLIP-115 shRNA (m) Lentiviral Particles: sc-60476-V.

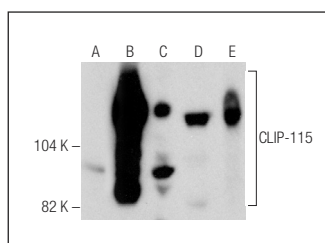
Molecular Weight of CLIP-115: 115 kDa.

Positive Controls: CLIP-115 (h2): 293 Lysate: sc-128332, HeLa whole cell lysate: sc-2200 or rat brain extract: sc-2392.

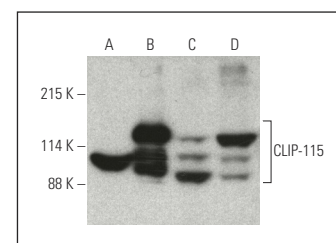
## RECOMMENDED SUPPORT REAGENTS

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



CLIP-115 (14): sc-135869. Western blot analysis of CLIP-115 expression in non-transfected 293: sc-110760 (A), human CLIP-115 transfected 293: sc-128332 (B) and HeLa (C) whole cell lysates and rat hippocampus (D) and rat brain (E) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



CLIP-115 (14): sc-135869. Western blot analysis of CLIP-115 expression in non-transfected: sc-110760 (A) and human CLIP-115 transfected: sc-128332 (B) 293 whole cell lysates and rat hippocampus (C) and rat brain (D) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.