# CAS4 (h): 293T Lysate: sc-114182



The Power to Question

### **BACKGROUND**

Cas scaffolding protein family member 4, CAS4, also designated CASS4, HEFL (HEF-like protein), HEPL or C20orf32 is a 786 amino acid protein belonging to the CAS family which also includes p130 Cas, Sin and Cas-L. CAS4 is phosphorylated on tyrosines by SRC, interacts directly with focal adhesion kinase, FAK via its C-terminal SH3 domain and is thought to function as a possible docking protein involved in tyrosine-kinase-based signaling as it relates to cell adhesion. CAS4 is localized to the cytoplasm and cytoskeleton with most abundant expression found in lung and spleen. High expression has also been observed in both ovarian and leukemia cell lines. Multiple isoforms of CAS4 exist due to alternative splicing events. The gene encoding CAS4 maps to human chromosome 20 which represents about 2% of human DNA; chromosome 20 consists of approximately 63 million bases and 600 genes.

### **REFERENCES**

- Collins, S., McLean, C.A. and Masters, C.L. 2001. Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia and kuru: a review of these less common human transmissible spongiform encephalopathies. J. Clin. Neurosci. 8: 387-397.
- 2. Ville, D., Kaminska, A., Bahi-Buisson, N., Biraben, A., Plouin, P., Telvi, L., Dulac, O. and Chiron, C. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. Epilepsia 47: 543-549.
- 3. Elghezal, H., Hannachi, H., Mougou, S., Kammoun, H., Triki, C. and Saad, A. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. Eur. J. Med. Genet. 50: 441-445.
- 4. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. Asian J. Androl. 9: 540-544.
- Rikova, K., Guo, A., Zeng, Q., Possemato, A., Yu, J., Haack, H., Nardone, J., Lee, K., Reeves, C., Li, Y., Hu, Y., Tan, Z., Stokes, M., Sullivan, L., Mitchell, J., Wetzel, R., Macneill, J., Ren, J.M., Yuan, J., et al. 2007. Global survey of phosphotyrosine signaling identifies oncogenic kinases in lung cancer. Cell 131: 1190-1203.
- Singh, M.K., Dadke, D., Nicolas, E., Serebriiskii, I.G., Apostolou, S., Canutescu, A., Egleston, B.L. and Golemis, E.A. 2008. A novel CAS family member, HEPL, regulates FAK and cell spreading. Mol. Biol. Cell 19: 1627-1636.
- Zahedi, R.P., Lewandrowski, U., Wiesner, J., Wortelkamp, S., Moebius, J., Schütz, C., Walter, U., Gambaryan, S. and Sickmann, A. 2008. Phosphoproteome of resting human platelets. J. Proteome Res. 7: 526-534.

### **CHROMOSOMAL LOCATION**

Genetic locus: CASS4 (human) mapping to 20q13.2.

#### **PRODUCT**

CAS4 (h): 293T Lysate represents a lysate of human CAS4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

#### **RESEARCH USE**

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

### **APPLICATIONS**

CAS4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive CAS4 antibodies. Recommended use: 10-20 µl per lane.

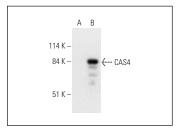
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CAS4 (B-1): sc-514771 is recommended as a positive control antibody for Western Blot analysis of enhanced human CAS4 expression in CAS4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

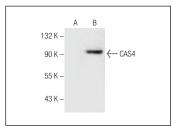
### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### **DATA**







CAS4 (H-3): sc-376968. Western blot analysis of CAS4 expression in non-transfected: sc-117752 (**A**) and human CAS4 transfected: sc-114182 (**B**) 293T whole cell lysates

## **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## **PROTOCOLS**

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