

CAS4 (B-1): sc-514771

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

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- Elghezal, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.
- Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
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- Singh, M.K., et al. 2008. A novel Cas family member, HEPL, regulates FAK and cell spreading. *Mol. Biol. Cell* 19: 1627-1636.
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CHROMOSOMAL LOCATION

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

SOURCE

CAS4 (B-1) is a mouse monoclonal antibody raised against amino acids 1-212 mapping at the N-terminus of CAS4 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.

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.

APPLICATIONS

CAS4 (B-1) is recommended for detection of CAS4 isoform 1, 2 and 3 of 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 CAS4 siRNA (h): sc-72733, CAS4 shRNA Plasmid (h): sc-72733-SH and CAS4 shRNA (h) Lentiviral Particles: sc-72733-V.

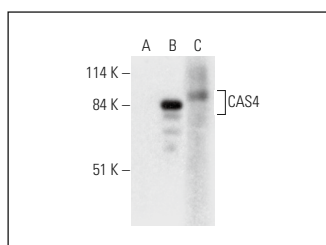
Molecular Weight of CAS4: 105 kDa.

Positive Controls: CAS4 (h): 293T Lysate: sc-114182 or human lung extract: sc-363767.

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



CAS4 (B-1): sc-514771. Western blot analysis of CAS4 expression in non-transfected: sc-117752 (A) and human CAS4 transfected: sc-114182 (B) 293T whole cell lysates and human lung tissue extract (C).

PROTOCOLS

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