

CSP

Cat.No. 154 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: 1 : 500 up to 1 : 1000 IHC: 1 : 500 up to 1 : 1000 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 182 to 198 from rat CSP (UniProt Id: P60905)
Reactivity	Reacts with: rat, mouse. Other species not tested yet.
Specificity	Specific for CSP.

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Cysteine String Proteins **CSPs** are composed of an N-terminal J-domain and a central palmitoylated cysteine string. This post-translational modification shifts the molecular weight of CSP 1 in brain from 23 kDa to 34 kDa and confers membrane targeting of the protein.

CSP has been initially identified as a synaptic vesicle protein which is involved in Ca²⁺ triggered neurotransmitter release. Later CSP was also found on Large Dense Core Vesicles (LDCVs) of pancreatic insulin secretory β-cells, chromaffin cells and adipocytes. It has been shown to interact with SNARE proteins like VAMP 2, VAMP 7 and syntaxin 4.

Selected General References

Interaction between constitutively expressed heat shock protein, Hsc 70, and cysteine string protein is important for cortical granule exocytosis in *Xenopus* oocytes.

Smith GB, Umbach JA, Hirano A, Gundersen CB
The Journal of biological chemistry (2005) 280(38): 32669-75.

Phosphorylation of cysteine string protein in the brain: developmental, regional and synaptic specificity.
Evans GJ, Morgan A

The European journal of neuroscience (2005) 21(10): 2671-80.

Cysteine string protein (CSP) inhibition of N-type calcium channels is blocked by mutant huntingtin.

Miller LC, Swayne LA, Chen L, Feng ZP, Wacker JL, Muchowski PJ, Zamponi GW, Braun JE
The Journal of biological chemistry (2003) 278(52): 53072-81.

The synaptic vesicle protein, cysteine-string protein, is associated with the plasma membrane in 3T3-L1 adipocytes and interacts with syntaxin 4.

Chamberlain LH, Graham ME, Kane S, Jackson JL, Maier VH, Burgoyne RD, Gould GW
Journal of cell science (2001) 114(Pt 2): 445-55.

The cysteine-string domain of the secretory vesicle cysteine-string protein is required for membrane targeting.

Chamberlain LH, Burgoyne RD
The Biochemical journal (1998) 335 (Pt 2): 205-9.

The molecular chaperone function of the secretory vesicle cysteine string proteins.

Chamberlain LH, Burgoyne RD
The Journal of biological chemistry (1997) 272(50): 31420-6.

Identification of a novel cysteine string protein variant and expression of cysteine string proteins in non-neuronal cells.

Chamberlain LH, Burgoyne RD
The Journal of biological chemistry (1996) 271(13): 7320-3.