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CSP Antibody
Protein A Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50867

Specification

CSP Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q9H3Z4
Reactivity	**Human, Mouse, Rat, Rabbit, Sheep, Guinea Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**22 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human CSP**
Epitope Specificity	**1-100/198**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.**
SIMILARITY	**Contains 1 J domain.**
SUBUNIT	**Homodimer (Probable). Interacts with the chaperone complex consisting of HSC70 and SGTA (By similarity).**
Post-translational modifications	**Fatty acylated. Heavily palmitoylated in the cysteine string motif.**
DISEASE	**Neuronal ceroid lipofuscinosis 4B (CLN4B) [MIM:162350]: An adult-onset neuronal ceroid lipofuscinosis. Neuronal ceroid lipofuscinoses are progressive neurodegenerative, lysosomal storage diseases characterized by intracellular accumulation of autofluorescent liposomal material, and clinically by seizures, dementia, visual loss, and/or cerebral atrophy. CLN4B has no visual involvement and is characterized by seizures and other neurologic symptoms. Note=The disease is caused by mutations affecting the gene represented in this entry.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
Cysteine string proteins (CSPs) are synaptic vesicle-associated, secretory vesicle proteins that are

involved in Ca2+-regulated exocytosis of synaptic vesicles and modulation of presynaptic transmembrane calcium fluxes in neuroendocrine and endocrine cell types. CSP contains a J-domain that binds HSP 70/HSC 70 chaperone ATPases and a membrane-targeting, palmitoylated cysteine-rich string region. CSPs may act as molecular chaperones in synapses, and mediate conformational folding of components of the vesicular exocytotic machinery. CSP is involved in the fine tuning of neurotransmission through its interaction with receptor-coupled trimeric GTP binding proteins (G proteins) and N-type Ca2+ channels. Two variants of CSP have been described: CSP1; and the 31 amino acid, C-terminally truncated isoform, CSP2. Subcellular fractionation of insulinoma cells shows CSP1 in granular fractions, while the membrane and cytosol fractions contain predominantly CSP2. The fractions also contain additional proteins, presumably CSP dimers. Furthermore, in various mammalian cell lines (including rat brain) CSP1 expression predominates CSP2 expression.

Antigen Region **1-100/198**

CSP Antibody - Additional Information

Gene ID 80331

Other Names
DnaJ homolog subfamily C member 5, Cysteine string protein, CSP, DNAJC5, CSP

Target/Specificity
Expressed in pancreas, kidney, skeletal muscle, liver, lung, placenta, brain and heart.

Dilution
WB~~ 1:500<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

CSP Antibody - Protein Information

Name DNAJC5 (HGNC:16235)

Function
Acts as a general chaperone in regulated exocytosis (By similarity). Acts as a co-chaperone for the SNARE protein SNAP-25 (By similarity). Involved in the calcium-mediated control of a late stage of exocytosis (By similarity). May have an important role in presynaptic function. May be involved in calcium-dependent neurotransmitter release at nerve endings (By similarity).

Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q29455}. Membrane {ECO:0000250|UniProtKB:Q29455}; Lipid-anchor {ECO:0000250|UniProtKB:Q29455}. Cytoplasmic vesicle, secretory vesicle, chromaffin granule membrane {ECO:0000250|UniProtKB:Q29455}. Melanosome. Cell membrane. Note=The association with membranes is regulated by

palmitoylation (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). {ECO:0000250|UniProtKB:Q29455, ECO:0000269|PubMed:17081065}

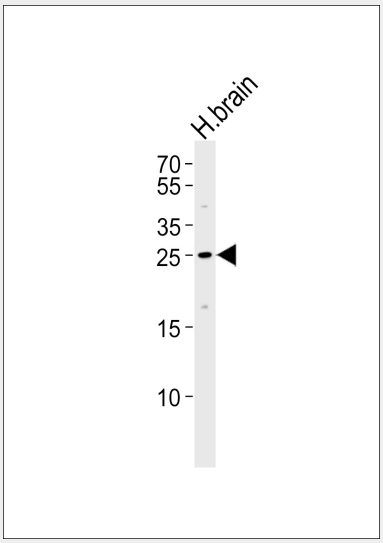
Tissue Location
Expressed in pancreas, kidney, skeletal muscle, liver, lung, placenta, brain and heart.

CSP Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CSP Antibody - Images



Western blot analysis of lysate from human brain tissue lysate,using CSP Antibody(AP50867). AP50867 was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

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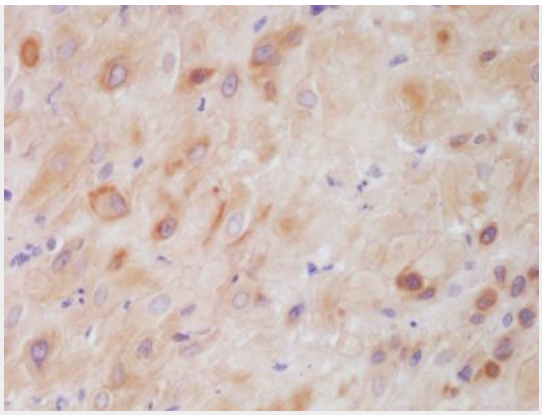

Tissue/cell: human placenta tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer at 37℃ for 20 min; Incubation: Anti-CSP Polyclonal Antibody, Unconjugated 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining

CSP Antibody - Background

May have an important role in presynaptic function. May be involved in calcium-dependent neurotransmitter release at nerve endings (By similarity).

CSP Antibody - References

Coppola T.,et al.FEBS Lett. 391:269-272(1996).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 414:865-871(2001).
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Hattori A.,et al.DNA Res. 7:357-366(2000).