

CLIP2 gene

CAP-Gly domain containing linker protein 2

Normal Function

The *CLIP2* gene provides instructions for making a protein called CAP-Gly domain containing linker protein 2. The protein is also known as CLIP-115. This protein is found predominantly in the brain, where it likely plays a role in the normal structure and function of nerve cells. Within cells, this protein is thought to regulate aspects of the cytoskeleton, the structural framework that helps to determine cell shape, size, and movement. The protein is associated with microtubules, which are rigid, hollow fibers that make up a significant part of the cytoskeleton. Microtubules help cells maintain their shape, assist in the process of cell division, and are essential for the transport of materials within cells.

Health Conditions Related to Genetic Changes

Williams syndrome

The *CLIP2* gene is located in a region of chromosome 7 that is deleted in people with Williams syndrome. As a result of this deletion, people with this condition are missing one copy of the *CLIP2* gene in each cell. Studies suggest that the loss of this gene may contribute to some of the characteristic features of Williams syndrome, including the unique behavioral traits and other symptoms involving the nervous system. A deletion of this gene probably disrupts the normal regulation of the cytoskeleton and affects the structure of nerve cells in the brain. It is not known how these changes may be related to the characteristic signs and symptoms of Williams syndrome.

Other Names for This Gene

- CAP-GLY domain containing linker protein 2
- CLIP-115
- CLIP2_HUMAN
- CYLN2
- Cytoplasmic linker protein 115
- Cytoplasmic linker protein 2
- KIAA0291

- MGC11333
- WBSCR4
- WSCR4

Additional Information & Resources

Tests Listed in the Genetic Testing Registry

- Tests of CLIP2 ([https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=7461\[geneid\]](https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=7461[geneid]))

Scientific Articles on PubMed

- PubMed (<https://pubmed.ncbi.nlm.nih.gov/?term=%28%28CYLN2%5BTIAB%5D%29+OR+%28cytoplasmic+linker+2%5BTIAB%5D%29%29+OR+%28%28CLIP-115%5BTIAB%5D%29+OR+%28CLIP2%5BTIAB%5D%29%29+AND+english%5Bla%5D+AND+human%5Bmh%5D+AND+%22last+3600+days%22%5Bdp%5D%29%29%29>)

Catalog of Genes and Diseases from OMIM

- CAP-GLY DOMAIN-CONTAINING LINKER PROTEIN 2; CLIP2 (<https://omim.org/entry/603432>)

Gene and Variant Databases

- NCBI Gene (<https://www.ncbi.nlm.nih.gov/gene/7461>)
- ClinVar ([https://www.ncbi.nlm.nih.gov/clinvar?term=CLIP2\[gene\]](https://www.ncbi.nlm.nih.gov/clinvar?term=CLIP2[gene]))

References

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- Meyer-Lindenberg A, Mervis CB, Berman KF. Neural mechanisms in Williamssyndrome: a unique window to genetic influences on cognition and behaviour. *NatRev Neurosci*. 2006 May;7(5):380-93. doi: 10.1038/nrn1906. Citation on PubMed (<https://pubmed.ncbi.nlm.nih.gov/16760918>)
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Genomic Location

The *CLIP2* gene is found on chromosome 7 (<https://medlineplus.gov/genetics/chromosome/7/>).

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