

SLITRK1 gene

SLIT and NTRK like family member 1

Normal Function

The *SLITRK1* gene provides instructions for making a protein that is a member of the SLITRK family. Proteins in this family are found in the brain, where they play a role in the growth and development of nerve cells. The SLITRK1 protein may help guide the growth of specialized extensions (axons and dendrites) that allow each nerve cell to communicate with nearby cells.

Health Conditions Related to Genetic Changes

Tourette syndrome

Mutations involving the *SLITRK1* gene have been identified in a small number of people with Tourette syndrome. One of these mutations, written as del1264C, deletes a single DNA building block (base pair) from the gene. This mutation leads to the production of an abnormally short, nonfunctional version of the SLITRK1 protein. Another mutation changes a single base pair in a region of DNA near the gene. This change probably interferes with production of the SLITRK1 protein. Although the *SLITRK1* gene is active in areas of the brain known to be involved in Tourette syndrome, it is unclear how mutations in or near the gene lead to the behavioral features of this condition. Because mutations have been reported in so few people with Tourette syndrome, the association of the *SLITRK1* gene with this disorder has not been confirmed.

Other Names for This Gene

- KIAA0918
- KIAA1910
- leucine rich repeat containing 12
- LRRC12
- SLIK1_HUMAN
- SLIT and NTRK-like family, member 1
- slit and trk like 1 protein
- slit and trk like gene 1

Additional Information & Resources

Tests Listed in the Genetic Testing Registry

- Tests of SLITRK1 ([https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=114798\[geneid\]](https://www.ncbi.nlm.nih.gov/gtr/all/tests/?term=114798[geneid]))

Scientific Articles on PubMed

- PubMed (<https://pubmed.ncbi.nlm.nih.gov/?term=%28SLITRK1%5BTIAB%5D%29+AND+english%5Bla%5D+AND+human%5Bmh%5D+AND+%22last+3600+days%22%5Bdp%5D>)

Catalog of Genes and Diseases from OMIM

- SLIT- AND NTRK-LIKE FAMILY, MEMBER 1; SLITRK1 (<https://omim.org/entry/609678>)

Gene and Variant Databases

- NCBI Gene (<https://www.ncbi.nlm.nih.gov/gene/114798>)
- ClinVar ([https://www.ncbi.nlm.nih.gov/clinvar?term=SLITRK1\[gene\]](https://www.ncbi.nlm.nih.gov/clinvar?term=SLITRK1[gene]))

References

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Genomic Location

The *SLITRK1* gene is found on chromosome 13 (<https://medlineplus.gov/genetics/chromosome/13/>).

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