

Variant: *NM_000330.4(RS1):c.520del (p.Arg174fs)*

Version: 1.0

CA10603553 [↗](#)

279886 (ClinVar) [↗](#)

Gene: RS1 ([HGNC:6247](#))

Condition: X-linked retinoschisis ([MONDO:0010725](#))

Inheritance Mode: X-linked inheritance (recessive (HP:0001419))

UUID: 3b0a1f6f-76c6-4f11-9191-a3d163ef9fc5

Approved on: 2025/5/19

Published on: 2025/5/20

HGVS expressions

NM_000330.4(RS1):c.520del (p.Arg174fs)

NM_000330.4:c.520del

NC_000023.11:g.18644433del

CM000685.2:g.18644433del

NC_000023.10:g.18662553del

CM000685.1:g.18662553del

NC_000023.9:g.18572474del

NG_008475.1:g.223829del

NG_008659.3:g.38017del

ENST00000379984.4:c.520del

ENST00000379984.3:c.520del

ENST00000379989.6:c.2714-1574del

ENST00000379996.7:c.2714-1574del

ENST00000476595.1:n.1011del

NM_000330.3:c.520del

NM_001037343.1:c.2714-1574del

NM_003159.2:c.2714-1574del

NM_001037343.2:c.2714-1574del

NM_003159.3:c.2714-1574del

Pathogenic

Met criteria codes **3**

PS4_Supporting

PVS1

PM2_Supporting

Evidence Links **0**

Expert Panel

X-linked Inherited Retinal Disease VCEP [↗](#)

Criteria Specification Information

[↗](#) **Criteria Specification:** *ClinGen X-linked Inherited Retinal Disease Expert Panel Specifications to the ACMG/AMP Variant Interpretation Guidelines for RS1 Version 1.0.0*

[↗](#) **Criteria Specification Approval History**

[↗](#) **Criteria Specifications for this VCEP**

Evidence submitted by expert panel

X-linked Inherited Retinal Disease VCEP

The NM_000330.4(RS1):c.520del variant is a frameshift variant due to 1 nucleotide deletion introducing a premature stop codon and causing a truncated protein. This variant is absent from hemizygous individuals in gnomAD v4.1.0 (PM2_Supporting). This is a frameshift variant that introduces a premature stop codon between amino acids 1-223 that is predicted to either trigger nonsense-mediated decay or to disrupt a critical C-terminal region required for proper multimerization of RS1 (PVS1, PMID: 19849666). This variant has been reported in at least 2 apparently unrelated probands meeting the PS4 requirement of a male diagnosed with X-linked retinoschisis (PMIDs: 30551202, 17852193, PS4_Supporting). In summary, this variant is classified as pathogenic for X-linked retinoschisis based on the ClinGen X-linked Inherited Retinal Disease Expert Panel Specifications to the ACMG/AMP Variant Interpretation Guidelines for RS1 Version 1.0.0: PM2_supporting, PVS1, and PS4_supporting (date of approval 01/24/2025).

Met criteria codes

PS4_Supporting			This variant has been reported in at least 2 apparently unrelated probands meeting the PS4 requirement of a male diagnosed with XLR5 (PMIDs: 30551202, 17852193, PS4_Supporting).
PVS1			This is a frameshift variant that introduces a premature stop codon between amino acids 1-223 that is predicted to either trigger nonsense-mediated decay or to disrupt a critical C-terminal region required for proper multimerization of RS1 (PVS1, PMID: 19849666).
PM2_Supporting			This variant is absent from hemizygous individuals in gnomAD v4.1.0 (PM2_Supporting).

Curation History



 ▾

 ▾

Showing 1 to 1 of 1 rows

--

The information on this website is not intended for direct diagnostic use or medical decision-making without review by a genetics professional. Individuals should not change their health behavior solely on the basis of information contained on this website. If you have questions about the information contained on this website, please see a health care professional.