The ClinGen Evidence Repository is an **FDA-recognized human genetic variant database** containing expert-curated assertions regarding variants' pathogenicity and supporting evidence summaries. [Disclaimer]

Variant: NM_001034853.2(RPGR):c.1582_1585del (p.Thr528fs)

Version: 1.0

CA2580616968

1297114 (ClinVar)

Gene: RPGR (HGNC:6103)
Condition: RPGR-related retinopathy (MONDO:0100437)
Inheritance Mode: X-linked inheritance
UUID: 17448832-d893-4448-96cd-26782915f71f
Approved on: 2025/8/3
Published on: 2025/8/4

HGVS expressions

NM_001034853.2(RPGR):c.1582_1585del (p.Thr528fs)
NM_001034853.2:c.1582_1585del
NC_000023.11:g.38288034_38288037del
CM000685.2:g.38288034_38288037del
NC_000023.10:g.38147287_38147290del
CM000685.1:g.38147287_38147290del
NC_000023.9:g.38032231_38032234del
NG_009553.1:g.44504_44507del
ENST00000494707.6:c.786_789del
ENST00000642170.1:n.1826+2927_1826+2930del
ENST00000642395.2:c.1582_1585del
ENST00000642739.1:c.1572+2927_1572+2930del
ENST00000644238.1:c.1386+2927_1386+2930del
ENST00000644337.1:c.1396_1399del
ENST00000645032.1:c.1582_1585del
ENST00000645124.1:c.1573-787_1573-784del
ENST00000646020.1:c.*275_*278del
ENST00000318842.11:c.1582_1585del
ENST00000339363.7:c.1582_1585del
ENST00000378505.6:c.1582_1585del
ENST00000465127.1:c.172-378087_172-378084del
ENST00000474584.5:c.*37+2927_*37+2930del
ENST00000482855.5:c.1582_1585del
ENST00000494707.5:c.139+2927_139+2930del
NM_000328.2:c.1582_1585del
NM_001034853.1:c.1582_1585del
NM_001367245.1:c.1579_1582del
NM_001367246.1:c.1396_1399del
NM_001367247.1:c.1572+2927_1572+2930del
NM_001367248.1:c.1602+2927_1602+2930del
NM_001367249.1:c.1569+2927_1569+2930del
NM_001367250.1:c.1569+2927_1569+2930del
NM_001367251.1:c.1386+2927_1386+2930del
NR_159803.1:n.1944_1947del
NR_159804.1:n.1648+2927_1648+2930del

NR_159805.1:n.1714+2927_1714+2930del
NR_159806.1:n.1715-787_1715-784del
NR_159807.1:n.1622+2927_1622+2930del
NR_159808.1:n.1826+2927_1826+2930del
NM_000328.3:c.1582_1585del

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 RPGR Version 1.0.0*

Criteria Specification Approval History

Criteria Specifications for this VCEP

Evidence submitted by expert panel

X-linked Inherited Retinal Disease VCEP

NM_001034853.2(RPGR):c.1582_1585del (p.Thr528fs) is a 4-bp deletion variant in exon 14 of 15, which results in a frameshift and premature stop codon after 4 amino acids and is predicted to trigger nonsense-mediated decay (PVS1). This variant is absent from gnomAD v4.1.0 (PM2_Supporting). This variant has been reported in at least 2 apparently unrelated probands meeting one of the PS4 requirements of a male with some functional vision impairment by age 30 years and/or decreased or absent electroretinogram responses, or a female with functional visual abnormality and documentation of a male relative affected with retiniopathy (PMIDs: 33372982, 14564670, PS4_Supporting). In summary, this variant is classified as pathogenic for RPGR-related retinopathy based on the ClinGen X-linked Inherited Retinal Disease Expert Panel Specifications to the ACMG/AMP Variant Interpretation Guidelines for RPGR Version 1.0.0; PVS1, PM2_Supporting, and PS4_Supporting. (date of approval 05/16/2025).

Met criteria codes

PS4_Supporting	✔	This variant has been reported in at least 2 apparently unrelated probands meeting one of the PS4 requirements of a male with some functional vision impairment by age 30 and/or decreased or absent ERG responses, or a female with functional visual abnormality and documentation of a male relative affected with retinitis pigmentosa (PMIDs: 33372982, 14564670, PS4_Supporting).
PVS1	✔	This is a frameshift variant that introduces a premature stop codon between amino acids 1-1132 that is predicted to either trigger nonsense-mediated decay or to disrupt a critical C-terminal region required for proper glutamylation of RPGR (PVS1, PMID: 36445968).
PM2_Supporting	✔	This variant is absent from gnomAD v4.1.0 (PM2_Supporting).

Curation History

Showing 1 to 1 of 1 rows

See Report	Preferred Variant Title	Classification	Condition	Published Date	Version	Criteria Specification	Gene
View	NM_001034853.2(RPGR):c.1582_1585d...	Pathogenic	RPGR-Related Retinopathy	2025-08-04	1.0	ClinGen X-linked Inherited Retinal Disease Expert Panel Specifications to the ACMG/AMP Variant Interpretation Guidelines for RPGR Version 1.0.0	RPGR

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.

ClinGen Terms of Use.
¤ Powered by BCM's Genboree.