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Variant: NM_001110792.2(MECP2):c.433C>T (p.Arg145Cys)

Version: 2.0

CA211250

11809 (ClinVar)

Gene: MECP2 (HGNC:4204)
Condition: Rett syndrome (MONDO:0010726)
Inheritance Mode: X-linked inheritance
UUID: 9b84fa8c-1789-41fa-a192-056f88af3907
Approved on: 2022/5/10
Published on: 2022/7/25

HGVS expressions

NM_001110792.2:c.433C>T
NM_001110792.2(MECP2):c.433C>T (p.Arg145Cys)
NC_000023.11:g.154031431G>A
CM000685.2:g.154031431G>A
NC_000023.10:g.153296882G>A
CM000685.1:g.153296882G>A
NC_000023.9:g.152950076G>A
NG_007107.2:g.110697C>T
NG_007107.3:g.110673C>T
ENST00000303391.11:c.397C>T
ENST00000453960.7:c.433C>T
ENST00000637917.1:c.30C>T
ENST00000303391.10:c.397C>T
ENST00000369957.5:c.*451C>T
ENST00000407218.5:c.433C>T
ENST00000453960.6:c.433C>T
ENST00000486506.5:n.2745C>T
ENST00000611468.1:c.385C>T
ENST00000619732.4:c.397C>T
ENST00000622433.4:c.385C>T
ENST00000628176.2:c.397C>T
NM_001110792.1:c.433C>T
NM_001316337.1:c.118C>T
NM_004992.3:c.397C>T
NM_001316337.2:c.118C>T
NM_001369391.2:c.118C>T
NM_001369392.2:c.118C>T
NM_001369393.2:c.118C>T
NM_001369394.1:c.118C>T
NM_001369394.2:c.118C>T
NM_001386137.1:c.-164C>T
NM_001386138.1:c.-164C>T
NM_001386139.1:c.-164C>T
NM_004992.4:c.397C>T

Pathogenic

Met criteria codes 5

PP3 | PS2_Very Strong | PM1 | PS4 | PM2_Supporting

Evidence Links 0

Expert Panel

Rett and Angelman-like Disorders VCEP

Criteria Specification Information

Criteria Specifications for this VCEP

Evidence submitted by expert panel

Rett and Angelman-like Disorders VCEP

The p.Arg133Cys (NM_004992) variant in MECP2 has been reported as an assumed de novo occurrence in at least 4 individuals with Rett Syndrome (PMID: 10814718, PMID: 10991688, PMID: 12707946) (PS2_very-strong). The p.Arg133Cys variant has been observed in at least 4 other individuals with Rett Syndrome (PMID: 10814718, PMID: 10991688, PMID: 12707946, PMID: 17387578, PMID: 16473305) (PS4). The p.Arg133Cys variant occurs in the well-characterized (Methyl-DNA binding [MDB]: aa 90-162) functional domain of the MECP2 (PM1). Computational prediction analysis tools suggests a deleterious impact; however, this information does not predict clinical significance on its own (PP3). The p.Arg133Cys variant in MECP2 is absent from gnomAD (PM2_Supporting). In summary the p.Arg133Cys variant in MECP2 is classified as Pathogenic for Rett Syndrome based on the ACMG/AMP criteria (PS2_very-strong, PS4, PM1, PP3, PM2_supporting).

Met criteria codes

PP3	✓	Computational prediction analysis tools suggests a deleterious impact; however, this information does not predict clinical significance on its own
PS2_Very Strong	✓	The p.Arg133Cys variant in MECP2 has been reported as an assumed de novo occurrence in at least 4 individuals with Rett Syndrome(PMID: 10814718,PMID: 10991688,PMID: 12707946)
PM1	✓	The p.Arg133Cys variant occurs in the well-characterized (Methyl-DNA binding [MDB]: aa 90-162;) functional domain of the MECP2
PS4	✓	The p.Arg133Cys variant has been observed in at least 4 other individuals with Rett Syndrome(PMID: 10814718,PMID: 10991688,PMID: 12707946,PMID:17387578,PMID:16473305)
PM2_Supporting	✓	The p.Arg133Cys variant in MECP2 is absent from gnomAD

Curation History

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