

**dup(1)(q21.1)**

- tandem duplication on Chr1: 144173284(q21.1) - 145230161(q21.1)
- all genes near breakpoints: ['PPIAL4F', 'FAM72C', 'OR4F5', 'DRD5P2', 'RNVU1-14', 'MIR1302-10', 'MIR6859-3', 'LOC101060524', 'FAM138A', 'LOC100996740', 'LOC105371215', 'PPIAL4E', 'MIR1302-9', 'LSP1P5', 'DDX11L17', 'MIR6859-1', 'WASH7P', 'LINC01145', 'SRGAP2B', 'NBPF20', 'LOC729737', 'LOC644634', 'FAM138F', 'FAM72D', 'SRGAP2D', 'DDX11L1', 'MIR1302-11', 'FAM138D', 'MIR6859-2', 'PPIAL4D', 'MIR1302-2', 'LOC101927429', 'MIR6859-4', 'FAM138C']
- genes near breakpoints documented in DDG2P: None
- all genes with +1 CN: ['LSP1P5', 'LOC101060524', 'DRD5P2', 'LOC101927429', 'LOC105371215', 'PPIAL4E', 'PPIAL4D', 'PPIAL4F', 'RNVU1-15', 'NBPF15', 'RNVU1-2A', 'SRGAP2-AS1', 'SRGAP2B', 'FAM72D', 'FAM72C', 'LINC01145', 'LOC644634', 'LOC100996740']
- genes with +1 CN documented in DDG2P: None