



Supplementary material 3. mpFISH detection of breakpoints at 3q21.2-q22.1 on marker chromosomes that are indicated by numbers 1-4 in Hone1 cell line.

A. Three chromosomal paints detect chromosome 2 (red), 3 (blue) and 12 (yellow) fragments.

B. From left to right: chr3 ideogram with 3q21.2-q22.1 region marked with horizontal bar; color ideogram to visualise different chr3 bands; FISH probes used for our study. The 3q21.2-q22.1 region that corresponds to 125,4-135,7 Mb position on chr3 contained 15 FISH probes, 6 of which are shown in C-E.

C-E. Results of FISH with unique sequence probes RP11-59j16 (C), RP11-177o2 (D) and RP11-994b16 (E) detected with red fluorescent color and with a unique sequence probe RP11-205a6 (C), TBSD sequence probes RP11-113m17 (D) and RP11-924m2 (E) detected with green fluorescent color. Arrows: an insertion breakpoint on the marker chromosome 2 (C); an unbalanced translocation breakpoint on the marker chromosome 1 (D); and an interstitial deletion breakpoint on the marker chromosome 1 (E).

F. Reconstitution of rearrangements on chromosome markers 1-4 based on mpFISH data. The region 3q21.2-q22.1 is indicated and the rearrangements, which are illustrated in C-E, are marked with corresponding letters.