Supplemental Data

The copper nanoclusters on the specific-primer PCR fragments with magnetic capture for label-free fluorescent sensing the T315I single nucleotide variant in BCR-ABL1 gene

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Table S1. The sequence of designed primers and the templates of T315I mutation site.

Primer's name	**Sequence (5'→3')**
BCR-ABL1-F_{22}	CGTGA TGAAC GTATG AGCGT ATGGG AGCCC CCGTT CTATA TCA
BCR-ABL1-F_{23}	TTACC TTCCT CCGCA ATACT GCAGG GAGCC CCCGT TCTAT ATCA
BCR-ABL1-F_{24}	TACTC GCTCA TACGT TCATT GTACG GGAGC CCCCG TTCTA TATCA
BCR-ABL1-F_{32}	TACTC ATACG CTCAT ACGTT CATCA CGACT ACGGG AGCCC CCGTT CTATA TCA
BCR-ABL1-R	biotin-CGAGA TCTGA GTGGC CATGT A
Template's name	**Sequence (5'→3')**
Exon 6-Wild	G GGTCTGCACC CGGGAGCCCC CGTTCTATAT CATCA**C**TGAG TTCATGACCT ACGGGAACCT CCTGGACTAC CTGAGGGAGT GCAACCGGCA GGAGGTGAAC GCCGTGGTGC TGCTGTACAT GGCCACTCAG ATCTCGTCAG CCATGGAGTA CCTGGAGAAG AAAAACTTCA TCCACAG
Exon 6-Mutant	G GGTCTGCACC CGGGAGCCCC CGTTCTATAT CATCA**T**TGAG TTCATGACCT ACGGGAACCT CCTGGACTAC CTGAGGGAGT GCAACCGGCA GGAGGTGAAC GCCGTGGTGC TGCTGTACAT GGCCACTCAG ATCTCGTCAG CCATGGAGTA CCTGGAGAAG

AAAAACTTCA TCCACAG

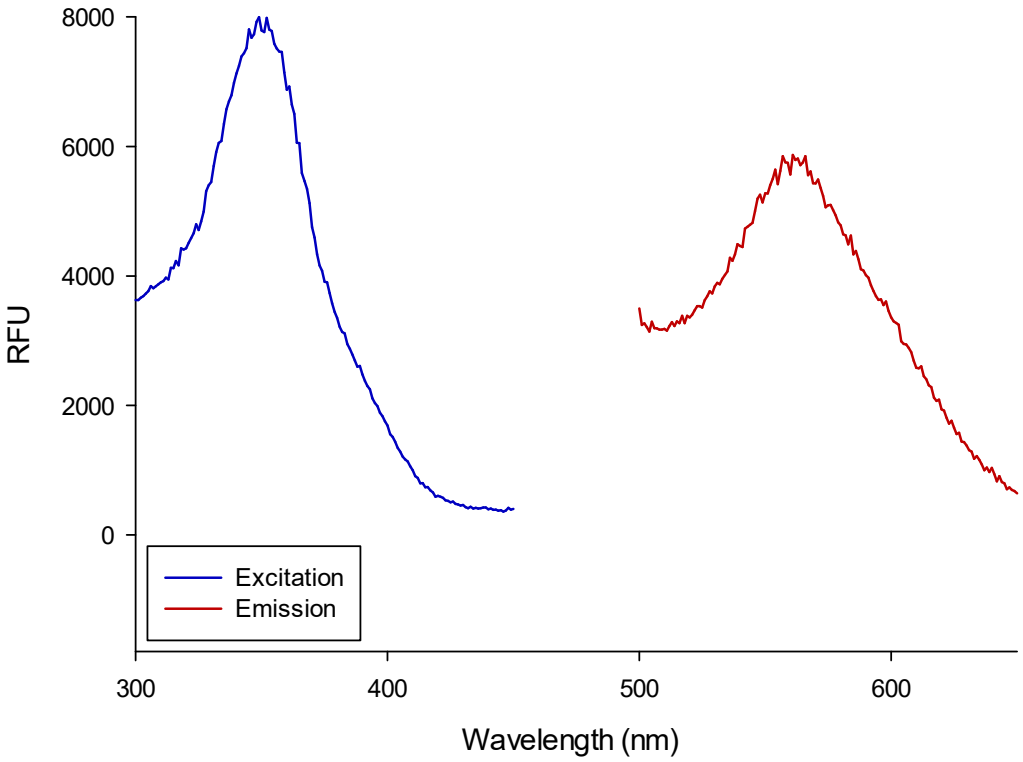

Fig. S1. Fluorescence excitation and emission scan of the copper nanoclusters synthesized with our PCR product.

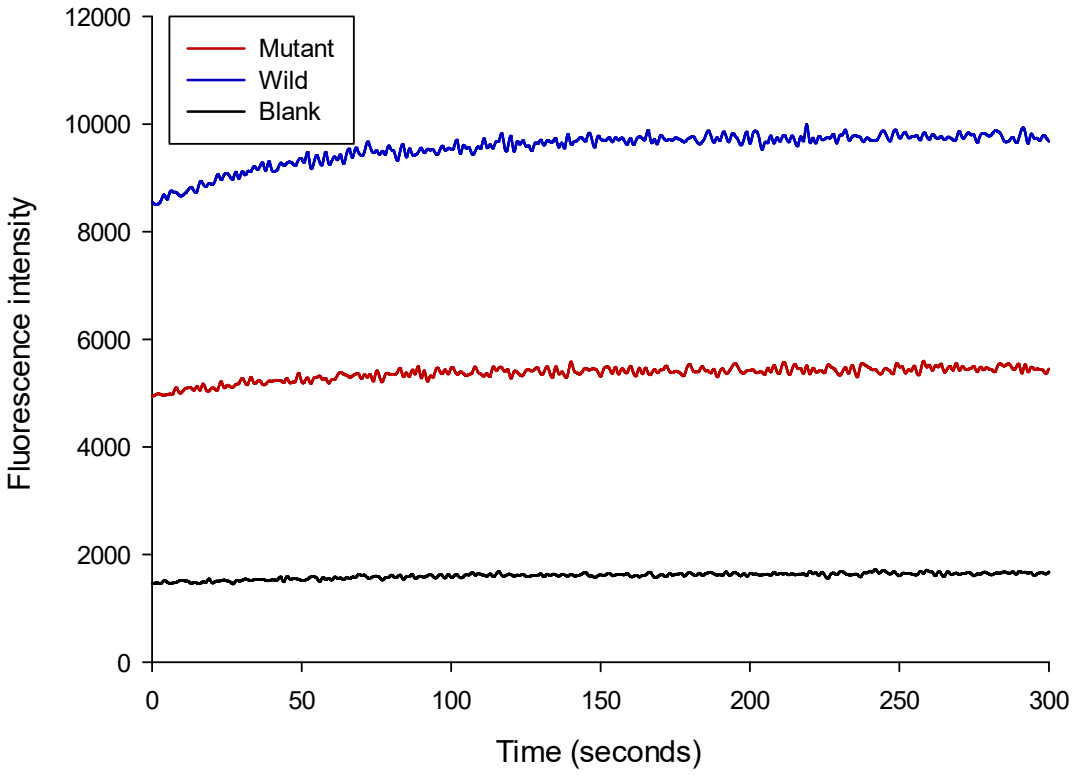

Fig. S2. Real-time fluorescence scan revealing the copper nanoclusters were synthesized and stable within 300 sec of reaction time.

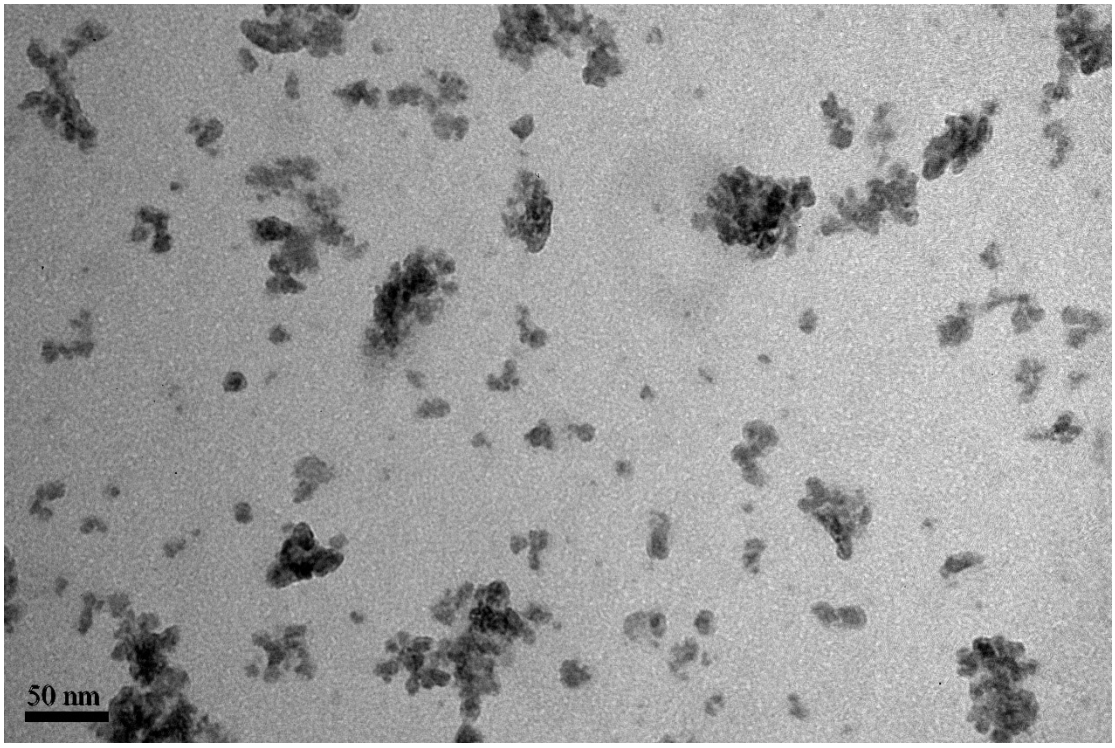

Fig. S3. The transmission electron microscope (TEM) image of the copper nanoclusters formation in our assay.

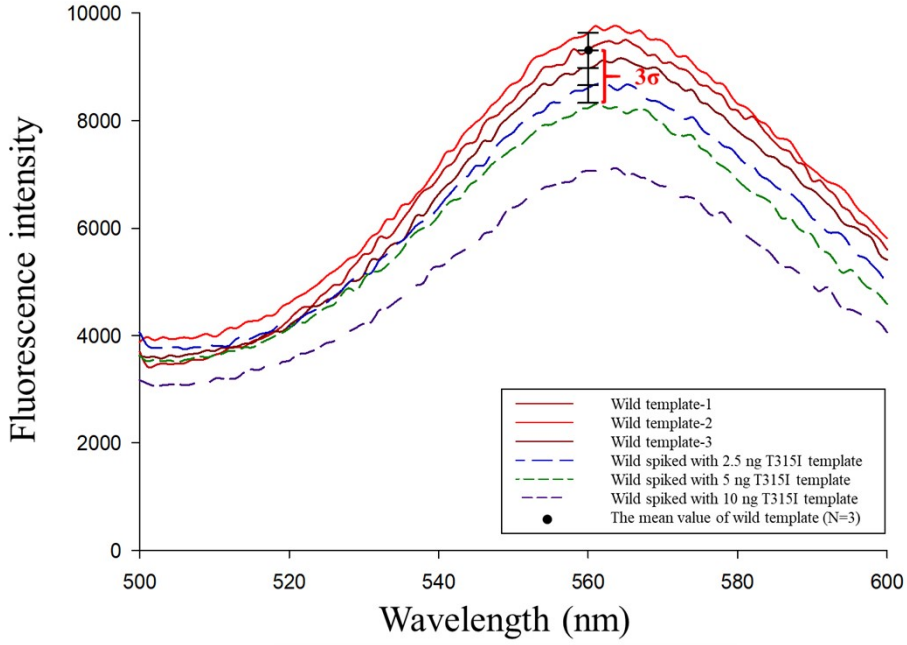

Fig. S4. The limit of the detection of the mutant type in this technique.