

Statement

To whom it may concern:

We Xiamen Boson Biotech Co., Ltd., a manufacturer of various types of Diagnostic Kits, having factories at 90-94 Tianfeng Road, Jimei North Industrial Park, Xiamen, P.R.C. do hereby confirm that Omicron evolved from the previous BA.1 variant into different subvariants of BA.2, BA.3, BA.4 and BA.5. The biggest difference between the different Omicron subvariants occurs on the S protein, with very little difference on the N protein, as shown in the table below:

	BA.1	BA.2	BA.2.12.1	BA.2.75	BA.3	BA.4	BA.5
N protein mutation sites	P13L del31/33 R203K G204R	P13L del31/33 R203K G204R S413R	P13L del31/33 R203K G204R S413R	P13L R203K G204R S413R	P13L del31/33 R203K G204R S413R	P13L del31/33 P151S R203K G204R S413R	P13L del31/33 R203K G204R S413R

The Boson Rapid SARS-CoV-2 Antigen Test Card detects the N protein of the SARS-CoV-2 virus. As shown in the table above, the N protein variation sites of BA.2, BA.2.12.1, BA.3, and BA.5 are completely identical, and only differ from BA.1 in the 413th amino acid. The N protein variation sites of BA.2.75 are only differ from BA.2 in the 31/33th amino acid. Boson internally evaluated the detection of BA.1, and external research included the detection of BA.1 and BA.2 (Denmark Statens Serum Institut), and the results were all detectable. The results of Omicron BA.2 can be found at

<https://en.ssi.dk/-/media/arkiv/subsites/covid19/diagnostik/afprvning-af-sars-cov-2-antigentests-for-pvisning-af-varianter.pdf?la=en>. BA.4 and BA.2, BA.3, BA.5 are different except for the 151st amino acid, and other N protein variation sites are completely identical. Due to the amino acid mutation at position 151 of BA.4 lie without the epitope region for Boson Rapid SARS-CoV-2 Antigen Test Card, So Boson reagent can also detect BA.2.12.1, BA.2.75, BA.3, BA.4 and BA.5.

XIAMEN BOSON BIOTECH CO., LTD
Jul 07, 2022

