Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG ELISA Kit

Summary

Catalog No.	KAV00102
Specificity	Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG Antibody
Applications	Used for the quantitative determination of Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG concentration in serum and plasma.
Stability and Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 10% prior to the expiration date under appropriate storage condition.
Detection method	Colorimetric
Sample type	Plasma, Serum
Assay type	Quantitative
Sensitivity	0.47 ng/mL
Range	1.56 - 100 ng/mL
Recovery	80-120%
Shipping	2-8 ℃
Note	For Research Use Only.

Description

PRINCIPLE OF THE ASSAY This assay employs the quantitative indirect enzyme immunoassay technique. Recombinant SARS-CoV-2 Spike Protein (Beta/B.1.351) has been pre-coated onto a microplate. Standards

or samples are pipetted into the wells and any Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG present is bound by the immobilized protein. After washing away any unbound substances, a HRP-labeled Goat Anti-Human IgG antibody is added to the wells. Following a wash to remove any unbound enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG bound in the initial step. The color development is stopped and the intensity of the color is measured.

Precision

Intra-Assay Precision (Precision within an assay): <10%

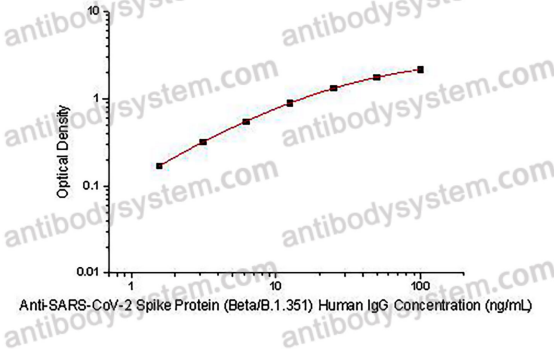
Three samples of known concentration were tested sixteen times on one plate to assess intra-assay precision.

Inter-Assay Precision (Precision between assays): <15%

Three samples of known concentration were tested in twenty four separate assays to assess inter-assay precision.

	Intra-Assay Precision			Inter-Assay Precision		
Sample	1	2	3	1	2	3
n	16	16	16	24	24	24
Mean (ng/mL)	47.8	12.2	3.0	44.3	11.4	2.8
Standard deviation	2.7	0.4	0.1	3.0	0.6	0.1
CV (%)	5.6	2.9	3.0	6.8	5.5	4.5

Data Image



Experiment Example

CALCULATION OF RESULTS

Average the duplicate readings for each standard and sample. Construct a standard curve by plotting the mean absorbance for each standard on the Y-axis against the concentration on the X-axis and draw a best fit curve through the points on the graph. The data may be linearized by plotting the log of the Anti-SARS-CoV-2 Spike Protein (Beta/B.1.351) Human IgG concentrations versus the log of the O.D. and the best fit line can be determined by regression analysis. This procedure will produce an adequate but less precise fit of the data. If samples have been diluted, the concentration read from the standard curve must be multiplied by the dilution factor.