Product Data Sheet

Product: PepStar SARS-CoV-2 Spike Glycoprotein Mutations

Product code: RT-SARS2-SMUT01-1

Source: SARS-CoV-2 (Severe Acute Respiratory Syndrome-Related Coronavirus 2)
Coverage of variants, including mutations of variants of concern (VoC) or variants of interest (VoI) Alpha, Gamma, Eta, Zeta, Delta-AY and Omicron.
Scan of the immunogenic regions of Spike glycoprotein which show antibody binding of overlapping 15mer peptides in patients with COVID-19 or vaccinated subjects after vaccination with vector-based vaccines (e.g. Vaxzevria® (AstraZeneca)) or mRNA based vaccines (e.g. Comirnaty® (Biontech/Pfizer)). 258 mutations which occur in more than 15 sequenced samples of SARS-CoV-2 infected subjects in these regions are covered by this library (data from GISAID.org, Dec. 2021). Each mutation is covered by a 15mer peptide with the respective mutated residue in the central position (AA8) of the peptide and the respective wildtype peptide. If frequent mutations are observed in neighbouring residues, these are also covered.

Protein ID: P0DTC2 (wild-type sequence)

No. of peptides: 468 peptides (One Peptide per mutation and respective wild-type peptide, no static overlap.)

Length: aa

Sequence:

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Mutations  covered: T 0547K; T05 49A; T0549 I; T0549S;  L0552F; T
0553I; E05 54D; E0554 Q; E0554G;  N0556K; K 0558N; K05 58R; P0561
S; F0565L;  R0567K; D 0568G; I05 69F; I0569 T; I0569V;  A0570D; A
0570S; A05 70V; A0570 Y; D0571E;  T0572I; T 0573I; D05 74Y; D0574
N; D0574V;  A0575S; E 0583A; E05 83D; E0583 Q; I0584V;  L0585F; T
0588A; T05 88I; T0588 S; P0589S;  S0591A; G 0594S; V05 95I; P0621
L; P0621S;  V0622A; V 0622F; V06 22I; V0622 L; A0623S;  A0623V; H
0625Y; H06 25R; A0626 S; A0626T;  A0626V; D 0627G; D06 27H; D0627
Y; Q0628E;  Q0628K; L 0629I; P06 31S; T0632 N; T0632S;  V0635I; T
0638A; T06 38I; T0638 S; G0639S;  G0639V; S 0640-; S06 40F; S0640
Y; N0641K;  N0641S; V 0642F; V06 42G; V0642 I; F0643L;  A0647S; A
0647V; A06 47G; I0651 V; A0653V;  E0654A; E 0654K; E06 54Q; E0654
V; H0655Q;  H0655Y; N 0657K; N06 58D; N0658 K; N0658T;  S0659L; Y
0660F; Y06 60H; E0661 D; A0668S;  G0669S; I 0670M; I06 70V; A0672
V; S0673G;  S0673T; Y 0674F; Q06 75H; Q0675 K; Q0675L;  Q0675R; T
0676I; T06 76A; Q0677 H; Q0677K;  Q0677L; Q 0677P; Q06 77R; T0678
I; N0679-;  N0679D; N 0679K; N06 79L; N0679 S; N0679T;  S0680T; S
0680F; S06 80P; E0780 A; E0780D;  E0780K; E 0780Q; A07 83S; A0783
V; V0785A;  V0785I; K 0786N; K07 86R; Q0787 K; Q0787R;  I0788V; T
0791I; T07 91K; P0792 T; P0793S;  I0794L; I 0794T; K07 95N; K0795
R; D0796G;  D0796H; D 0796N; D07 96Y; F0797 L; G0798S;  Q0804K; I
0805L; I08 05M; I0805 V; P0807L;  P0807S; D 0808G; D08 08N; P0809
L; P0809S;  P0809T; S 0810L; P08 12L; P0812 S; S0813I;  S0813N; R
0815K; I08 18V; L0821 I; L0821V;  L0822F; V 0826L; T08 27I; L0828
F; A0829S;  A0829T; D 0830G; A08 31S; A0831 T; A0831V;  L1141F; L
1141W; E11 44Q; D1146 H; D1146N;  D1146Y; S 1147L; E11 50D; D1153
A; D1153Y;  Y1155F; Y 1155H; K11 57N; K1157 R; H1159R;  H1159Y; P
1162A; P11 62L; P1162 R; P1162S;  D1163A; D 1163E; D11 63G; D1163
H; D1163Y;  V1164F; V 1164I; D11 65Y; G1167 A; G1167F;  G1167V; D
1168G; I11 69F; I1169 L; S1170F;  G1171S; G 1171V; I11 72V; A1174
V; A1174S;  V1176F; V 1177I; V11 77L; N1178 D; K1181E;  K1181N; F
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Specifications: Microarray glass slide, 1"x3" (2.5 x 7.5cm)

Layout: Peptides are printed in three individual subarrays. An exemplary view is shown below. For layout details please refer to .gal-file enclosed to shipment or contact customer support.

Figure 1: Standard array format: Microarray displays all peptides in triplicates (1 spot per subarray)

Storage conditions: Store refridgerated at 4°C