

Certificate of Analysis

Cell count	2 million per vial
Viability	98%
CD8+	57.6%
CD8+SARS-CoV-2-S ₄₂₄ Dex	24.2%
CD8+SARS-CoV-2-S ₁₂₂₀ -Dex	2.0%
Sterility	Negative for Bacteria, Yeast, and Fungi

Donor Information

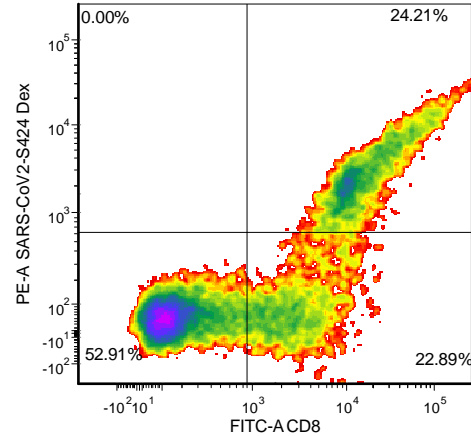
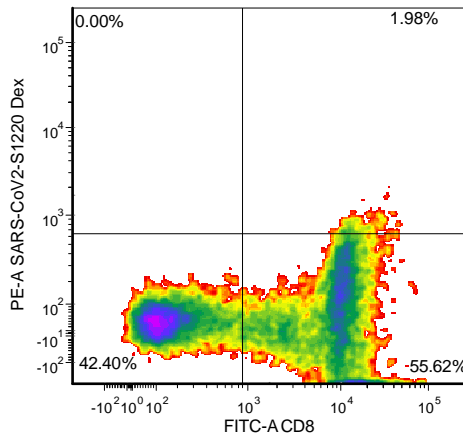
Donor ID	401
Age	30
Gender	Female
Race	Caucasian
Height	5'3"
Weight	277
ABO Type	A positive

HLA typing

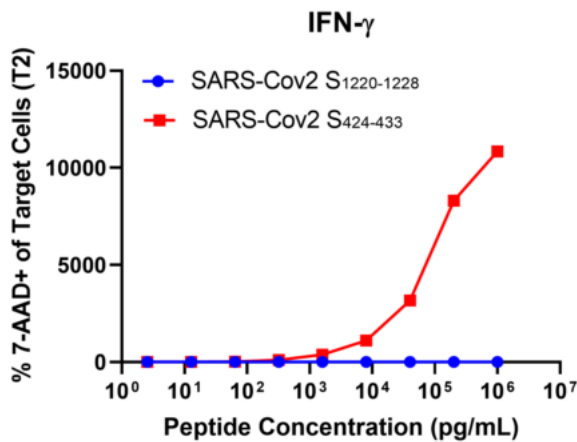
	Allele 1	Allele 2
HLA-A	*0201	*0201
HLA-B	*18	*40
HLA-C	*03	*07
HLA-DRB1	*08	*12

Donors are tested for the blood borne pathogens HIV-1 and 2, Hepatitis B, Hepatitis C and HTLV-1 and are negative. Cells should still be handled as if potentially infectious following biosafety level 2 procedures

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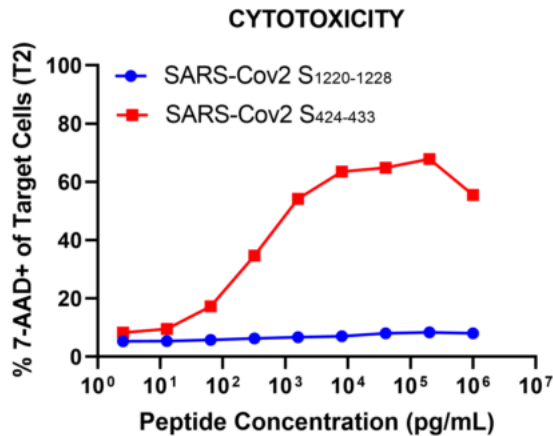


Test agent (right dotplot): SARS-CoV-2-S424 Dex = SARS-CoV-2-S₄₂₄₋₄₃₃ peptide: (KLPDDFTGCV) HLA-A*0201-PE MHC Dextramer (Immudex, Copenhagen, Denmark); control agent (left dotplot) SARS-CoV-2-S1220 Dex = SARS-CoV-2-S₁₂₂₀₋₁₂₂₈ peptide: (FIAGLIAIV) HLA-A*0201-PE MHC Dextramer (Immudex, Copenhagen, Denmark)



Functional Assay of anti- SARS-CoV-2-S₄₂₄₋₄₃₃ T cells
(Antigen-Specific IFN-gamma Secretion [upper figure] and Cytotoxicity Assay [lower figure])

40,000 T cells were plated in a 96-well round-bottom plate in the presence of 40,000 T2 cells, a B-LCL expressing HLA-A*0201) alone or in the presence of increasing concentrations of test peptide: HLA-A*0201 restricted SARS-CoV-2 S₄₂₄₋₄₃₃ peptide (KLPDDFTGCV) or irrelevant control peptide: HLA-A*0201 restricted SARS-CoV-2 S₁₂₂₀₋₁₂₂₈ (FIAGLIAIV). Assay media is RPMI-1640 + 10% FBS + 2 mM L-Glutamine.



Supernatants were collected after 18-24 hours of incubation. IFN- γ concentration was analyzed using the Meso Scale Discovery IFN- γ assay (**upper figure**).

The remaining cells were labelled with 7-AAD and analyzed for cell viability/death on a flow cytometer. Target cells (T2) were initially gated based on forward and side scatter properties. Percent cytotoxicity, represented by % 7-AAD+ target cells (T2) is reported against peptide concentration (**lower figure**).

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