

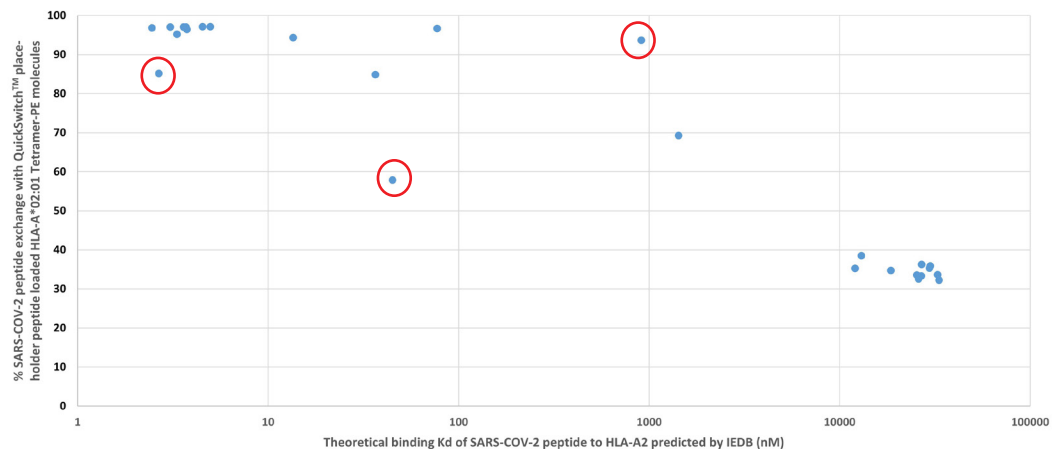
SARS-CoV-2 MHC-Peptide Screening Kit Bundles

QuickSwitch™ Tetramer kits and Peptides

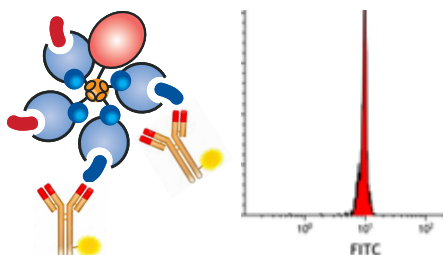
Analyze antigen specific CD8+ T cell responses to SARS-CoV-2 quickly and easily with the MHC class I QuickSwitch™ kits bundled with SARS-CoV-2 peptides. These bundles offer the possibility of creating up to 8 different MHC tetramers within 1 day. In addition, this bundle provides significant cost and time savings since multiple custom tetramers do not need to be ordered. QuickSwitch™ kits are available in PE, APC or BV421 conjugates for each bundle. MBL International supports all research to help understand the immune response to the SARS-CoV-2 disease. Contact us today with your specific questions in this important line of study.

Most peptide sequences were selected from in silico screens of potential MHC binders (1) or from experimental studies (2) and were validated for high affinity binding to four different MHC class I alleles (3). In addition, this publication is also cited on Immune Epitope Database and Analysis Resource (IEDB) (4). (Please note if using tetramer cocktails, staining assay optimization will be required by the end user.)

% Peptide exchange as compared to the theoretical binding affinity of each peptide to HLA-A2 as determined by IEDB

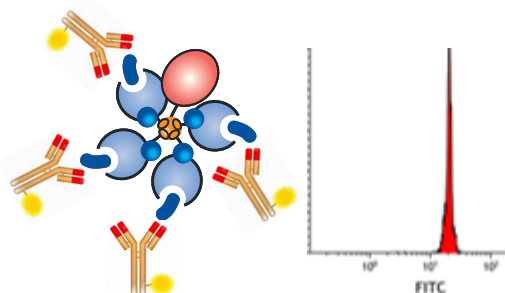


QuickSwitch™ Tetramer exchanged with a peptide of your choice



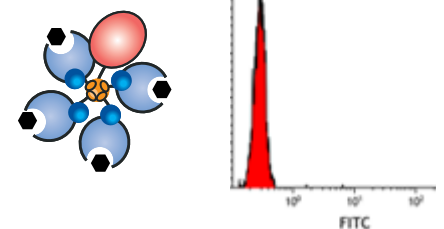
Low Peptide Exchange = High FL1 (FITC) Signal

QuickSwitch™ Tetramer where peptide exchange did not occur



No Peptide Exchange = High FL1 (FITC) Signal

Beads only stained with anti-Exiting Peptide AB- simulating 100% peptide exchange



High Peptide Exchange = Low FL1 (FITC) Signal

For Research Use Only. Not for use in diagnostic procedures.

HLA-A*02:01 QuickSwitch™ Tetramer Kit and Peptides Bundle 1 Code: TB-7300-K1/K2/K4-BUND1

Peptide Sequence	Peptide Location
FLAHIQWMV	SARS-CoV-2 ORF1ab (3122-3130)
FLLNKEMYL	SARS-CoV-2 ORF1ab (3183-3191)
LLDDFVEII	SARS-CoV-2 ORF1ab (6749-6758)
LLYDANYFL	SARS-CoV-2 ORF3a protein (139-147)
SMWALIISV	SARS-CoV-2 ORF1ab (3732-3740)
TLMNVLTIV	SARS-CoV-2 ORF1ab (3710-3718)
YLDAYNMMI	SARS-CoV-2 ORF1ab (6419-6427)
YLNTLTLAV	SARS-CoV-2 ORF1ab (6851-6859)

H-2 Kb QuickSwitch™ Tetramer Kit and Peptides Bundle 1 Code: TB-7400-K1/K2/K4-BUND1

Peptide Sequence	Peptide Location
VNFNFNGL	Chain A, SARS-CoV-2 spike glycoprotein (539-546)
MAYRFNGI	Chain A, SARS-CoV-2 spike glycoprotein (902-909)
INITRFQTL	Chain A, SARS-CoV-2 spike glycoprotein (233-241)
VVLSFELL	Chain A, SARS-CoV-2 spike glycoprotein (511-518)
SIVRFPNI	Chain A, SARS-CoV-2 spike glycoprotein (325-332)
GNYNLYRL	Chain A, SARS-CoV-2 spike glycoprotein (447-455)

HLA-A*03:01 QuickSwitch™ Tetramer Kit and Peptides Bundle 1 Code: TB-7306-K1/K2/K4-BUND1

Peptide Sequence	Peptide Location
ASMPPTIAK	SARS-CoV-2 ORF1ab (2192-2200)
KSAGFPFNK	SARS-CoV-2 ORF1ab (4892-4900)
KTFPPTEPK	SARS-CoV-2 nucleocapsid phosphoprotein (362-370)
STFNVPMEK	SARS-CoV-2 ORF1ab (2600-2608)
TTIKPVTYK	SARS-CoV-2 ORF1ab (1875-1883)

HLA-A*24:02 QuickSwitch™ Tetramer Kit and Peptides Bundle 1 Code: TB-7302-K1/K2/K4-BUND1

Peptide Sequence	Peptide Location
DYVYNPFMI	SARS-CoV-2 ORF1ab (6159-6167)
FYGGWHNML	SARS-CoV-2 ORF1ab (4986-4994)
NYLKRRVVF	SARS-CoV-2 ORF1ab (3159-3167)

HLA-A*02:01 QuickSwitch™ Tetramer Kit and Peptides Bundle 2 Code: TB-7300-K1/K2/K4-BUND2

Peptide Sequence	Peptide Location
YLYALVYFL	SARS-CoV-2 ORF3a protein (107-115)
VVFLHVTYV	Chain A, SARS-CoV-2 spike glycoprotein (1060-1068)
SIAYTMSL	Chain A, SARS-CoV-2 spike glycoprotein (691-699)
KLPDDFTGCV	Chain A, SARS-CoV-2 spike glycoprotein (424-433)
ISDEFSSNV	ORF1ab polyprotein SARS-CoV-2 (5583-5591)
RLNEVAKNL	SARS-CoV-2 Spike Glycoprotein
YLPRTFLL	SARS-CoV-2 Spike Glycoprotein
RLQSLQTYV	SARS-CoV-2 Spike Glycoprotein

H-2 Kb QuickSwitch™ Tetramer Kit and Peptides Bundle 2 Code: TB-7400-K1/K2/K4-BUND2

Peptide Sequence	Peptide Location
VVFLHVTYV	Chain A, SARS-CoV-2 spike glycoprotein (1060-1068)
SIAYTMSL	Chain A, SARS-CoV-2 spike glycoprotein (691-699)
VTQLYLGGM	ORF1ab polyprotein SARS-CoV-2 (5385-5393)
ITGLYPTL	ORF1ab polyprotein SARS-CoV-2 (5573-5580)
AAYYVGYL	Chain A, SARS-CoV-2 spike glycoprotein (263-270)
YNYLYRLF	Chain A, SARS-CoV-2 spike glycoprotein (449-456)

HLA-A*11:01 QuickSwitch™ Tetramer Kit and Peptides Bundle 1 Code: TB-7304-K1/K2/K4-BUND1

Peptide Sequence	Peptide Location
ASMPPTIAK	SARS-CoV-2 ORF1ab (2192-2200)
KSAGFPFNK	SARS-CoV-2 ORF1ab (4892-4900)
KTFPPTEPK	SARS-CoV-2 nucleocapsid phosphoprotein (362-370)
STFNVPMEK	SARS-CoV-2 ORF1ab (2600-2608)
TTIKPVTYK	SARS-CoV-2 ORF1ab (1875-1883)