

U-Load dCODE Dextramer[®] is a DNA barcode labeled Dextramer[®] backbone Recommended optimized for attachment of biotinylated MHC-peptide monomers. U-Load use dCODE Dextramer® is used in combination with easYmers® or U-Load® MHC-II to generate U-Load dCODE Dextramer[®] MHC for detection of antigen-specific T cells.

For research use only. Not for use in diagnostic or therapeutic procedures.

Reagents provided

- U-Load dCODE Dextramer[®]
- U-Load dCODE Dextramer[®] Dilution Buffer: 4xPBS, 2% BSA, 30 mM NaN₃, pH 7 (Cat. No.# ULBUF)

U-Load dCODE Dextramer[®] consists of a fluorescent (PE) dextran polymer backbone carrying an average of 18 acceptor sites for biotinylated ligands and a unique DNA Barcode oligo for sorting of U-Load dCODE Dextramer[®]-positive cells before loading the sample into the BD Rhapsody[™] system or 10x Chromium Gene Expression platform. Each U-Load dCODE Dextramer® is uniquely identified by its fluorophore and DNA Barcode, e.g., PE / GCGAGTAAGGGTCAAGTAAAGCGTAATAGTGGCAGG.

For U-Load dCODE Dextramer[®] (RiO), the unique DNA Barcode oligo comprises:

- BD Rhapsody[™] compatible PCR handle sequences for PCR amplification
- Unique Molecule Identifier (UMI) sequence .
- DNA Barcode sequence that specifies the MHC-peptide specificity

PCR handle	UMI	DNA Barcode	Poly A sequence
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For U-Load dCODE Dextramer[®] (10x), the unique DNA Barcode comprises:

- Primer sequence compatible with Illumina[®] Sequencers (Nextera pR2)
- Unique molecule identifier (UMI)
- ID sequence (barcode) that specify the MHC-peptide specificity
- Capture sequence for 10x Chromium Single Cell Immune Profiling solution

Nextera pR2 UMT ТD UMT Capture seq CGGAGATGTGTATAAGAGACAGNNNNNNNNNXXXXXXXXXXXXXXXNNNNNNNNNCCCATATAAGAAA 31 51

For U-Load dCODE Dextramer[®] (HiT), the unique DNA Barcode oligo comprises:

- Forward and reverse primer handle sequences for amplification of DNA Barcode
- Unique Molecule Identifier (UMI) sequence
- DNA Barcode sequence that specifies the MHC-peptide specificity .

Reverse handle DNA Barcode UMI Forward handle

U-Load dCODE Dextramer[®] is provided at a concentration of 2.7×10^{-7} M in PBS buffer, containing 1% bovine serum albumin (BSA) and 15 mM NaN₃, pH 7.2.



Sizes	U-Load dCODE Dextramer $^{\ensuremath{\mathbb{R}}}$ is provided as single reagents or in panels:
	Single reagents of 20 tests (24 $\mu L),$ 50 tests (60 $\mu L),$ or 150 tests (180 $\mu L)$ each.
	Panels of 16, 32, 48, 64, 80, and 96 U-Load dCODE Dextramer^® reagents for 20 tests (24 μL), or 50 tests (60 μL) each.
	2 vials of U-Load dCODE Dextramer [®] Dilution Buffer (3 ml) are provided together with single reagents.
	4 vials of U-Load dCODE Dextramer [®] Dilution Buffer (6 ml) are provided together with panels of reagents.
Storage	Reagents should be stored at 2-8°C in the dark – the plastic vial only partially protects the reagents against light
Precautions	Contains sodium azide (NaN ₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, sodium azide may react with lead and copper, plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing. As with any product derived from biological sources, proper handling procedures should be used. For professional users.
Recommended protocols	See "Protocol for Preparation of MHC I-peptide monomer and fluorescent U- Load dCODE Dextramer [®] MHC I". For U-Load dCODE Dextramer [®] (RiO) see "dCODE Dextramer [®] (RiO) Package Insert". For U-Load dCODE Dextramer [®] (10x) see "dCODE Dextramer [®] (10x compatible) Staining Protocol". For U-Load dCODE Dextramer [®] (HiT) see "dCODE Dextramer [®] (HiT) Package Insert". (www.immudex.com/resources/protocols/)
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