abcam

Product datasheet

5' Feature Barcode Antibody Conjugation Kit - Lightning-Link® - Oligos 1-10 ab270703

3 Images

Overview

Product name

Product overview

5' Feature Barcode Antibody Conjugation Kit - Lightning-Link® - Oligos 1-10

5' Feature Barcode Antibody Conjugation Kit - Lightning-Link® - Oligos 1-10 (ab270703) enables simple and rapid conjugation of oligonucleotide barcodes to antibodies to enable cell surface protein analysis in Multiomic Cytometry on 10x Genomics Chromium Controller. This kit is compatible with Chromium Single Cell Immune Profiling.

The kit includes 10 distinct oligonucleotide barcodes ready to conjugate to 10 μ g of antibody each. The protocol involves only a few steps, requires minimal hands-on time and doesn't require any expertise in antibody conjugation or oligonucleotide sourcing.

Please find antibody buffer considerations and compatibility in the protocol booklet. For incompatible buffers and low antibody concentrations, please see our **antibody purification and concentration kits**.

For conjugating antibodies with additional distinct oligonucleotide barcodes, please see 5' Feature Barcode Antibody Conjugation Kit - Lightning-Link $^{\!8}$ - Oligos 11-20 (ab270705) and 5' Feature Barcode Antibody Conjugation Kit - Lightning-Link $^{\!8}$ - Oligos 21-30 (ab270709). 100 μg conjugation kits are available on-demand for each of these 30 oligonucleotide barcodes. For conjugating more than 30 antibodies with distinct oligonucleotide barcodes, please contact us to discuss your requirements.

Notes

For oligonucleotide barcode sequence information, please see appendix in the protocol booklet.

Storing and handling conjugation kits

Lyophilized Lightning-Link® components are hygroscopic.

Kits are intentionally shipped at ambient temperature with silica gel to avoid exposure to moisture. Upon receipt, store the kit frozen and protect from moisture. Before opening the outer container, allow the lyophilized components to reach room temperature to minimize condensation.

Properties

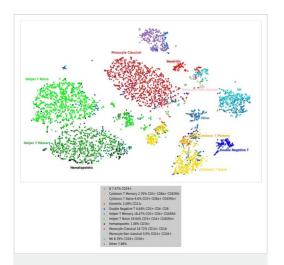
Components	1 kit
ab274246 - Conjugate Resuspension Buffer	1 x 1500µl
Modifier reagent	1 x 200µl
ab274247 - Oligo 10X5001	1 x 10µg
ab274248 - Oligo 10X5002	1 x 10µg
ab274249 - Oligo 10X5003	1 x 10µg
ab274250 - Oligo 10X5004	1 x 10µg
ab274251 - Oligo 10X5005	1 x 10µg
ab274252 - Oligo 10X5006	1 x 10μg
ab274253 - Oligo 10X5007	1 x 10µg
ab274254 - Oligo 10X5008	1 x 10μg
ab274255 - Oligo 10X5009	1 x 10μg
ab274256 - Oligo 10X5010	1 x 10μg
ab274244 - Quencher N	1 x 200µl
ab274245 - Reagent C	1 x 500µg
ab274243 - Reagent S	1 x 1250µl

Images



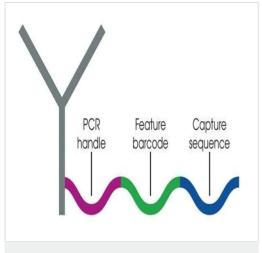
5' Feature Barcode Antibody Conjugation Kit - Lightning-Link $^{\circledR}$ is compatible with Chromium Single Cell Immune Profiling from 10x Genomics.

5' Feature Barcode Antibody Conjugation Kit -Lightning-Link® is part of the 10x Genomics Compatible Products



Cell surface protein analysis using 10 antibody conjugates generated with 5' Feature Barcode Antibody Conjugation Kit - Lightning-Link® on 10x Chromium Controller

tSNE projections of ~5,000 peripheral blood mononuclear cells (PBMCs) output by Cell Ranger PBMCs were grouped by cell surface protein expression profiles from 10 antibody conjugates for cell surface protein markers generated with 5' Feature Barcode Antibody Conjugation Kit - Lightning-Link®. The additional information from antibody UMI counts better can enrich phenotype information of many canonical immune cell types compared to gene expression data alone - naive and memory T cells, CD4+ and CD8+ T cells (populations denoted with asterisk*), for example.



Antibody conjugate and oligonucleotide barcode format for Chromium Single Cell Immune Profiling from 10x Genomics

5' Feature Barcode Antibody Conjugation Kit - Lightning-Link® includes oligonucleotide barcodes compatible with Chromium Single Cell Immune Profiling from 10x Genomics, which are in the format:

5' CGGAGATGTGTATAAGAGACAGNNNNNNN

NNNXXXXXXXXXXXXXXNNNNNNNNCCCAT

ATAAGA*A*A 3'.

X represents the nucleotides of the unique barcode.

N represents a randomly selected A, C, G, or T.

The symbol * indicates a phosphorothioated bond, this modification renders the internucleotide linkage resistant to nuclease degradation.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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