

TotalSeq™-C0403 anti-human CD207 (Langerin) Antibody

Catalog# / Size	352209 / 10 µg
Clone	10E2
Regulatory Status	RUO
Other Names	CLEC4K
Isotype	Mouse IgG1, κ
Barcode Sequence	CATTCTTCACGGGAT
Description	CD207, also known as Langerin, is a 40 kD type II transmembrane cell glycoprotein which belongs to C-type lectin with mannose binding specificity. It is predominantly expressed on Langerhans cells and induces the formation of Birbeck granules, the Langerhans cell hallmark organelle. It is also found on several other subtypes of dendritic cells, such as dermal CD103-positive dendritic cells and splenic CD8-positive dendritic cells. Langerin is generally thought to be involved in antigen processing. Recently, it has been found that HIV captured by Langerin was internalized into Birbeck granule and degraded, which results in inhibition of HIV-1 infection and subsequent transmission.

Product Details

Reactivity	Human, Cross-Reactivity: Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Primary human Langerhans cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
Preparation	The antibody was purified by chromatography and conjugated with TotalSeq™-C oligomer under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Do not freeze.
Application	PG - Quality tested
Recommended Usage	<p>Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis and the oligomer sequence is confirmed by sequencing. TotalSeq™-C antibodies are compatible with 10x Genomics Chromium Single Cell Immune Profiling Solution.</p> <p>To maximize performance, it is strongly recommended that the reagent be titrated for each application, and that you centrifuge the antibody dilution before adding to the cells at 14,000xg at 2 - 8°C for 10 minutes. Carefully pipette out the liquid avoiding the bottom of the tube and add to the cell suspension. For Proteogenomics analysis, the suggested starting amount of this reagent for titration is ≤ 1.0 µg per million cells in 100 µL volume. Refer to the corresponding TotalSeq™ protocol for specific staining instructions.</p> <p>Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.</p>
Application Notes	Additional reported application (for the relevant formats) includes: blocking the binding of HIV-1 to Langerhans cells ¹ .
Additional Product Notes	TotalSeq™ reagents are designed to profile protein levels at a single cell level following an optimized protocol similar to the CITE-seq workflow. A compatible single cell device (e.g. 10x Genomics Chromium System and Reagents) and sequencer (e.g. Illumina analyzers) are required. Please contact technical support for more information, or visit biolegend.com/totalseq .

The barcode flanking sequences are CGGAGATGTGTATAAGAGACAGNNNNNNNNNN (PCR handle), and NNNNNNNNNCCCATATAAGA*A*A (capture sequence). N represents either randomly selected A, C, G, or T, and * indicates a phosphorothioated bond, to prevent nuclease degradation.

View more applications data for this product in our [Scientific Poster Library](#).

Application References

(PubMed link indicates BioLegend citation)

1. Witte LD, *et al.* 2007. *Nat. Med.* 13:367. (Block)

RRID AB_2876664 (BioLegend Cat. No. 352209)

Antigen Details

Structure	40 kD glycoprotein
Distribution	Langerhans cells, dermal CD103-positive dendritic cells, and splenic CD8-positive dendritic cells
Function	Binding and processing antigen; capturing, internalizing and degrading HIV
Ligand/Receptor	Antigen containing mannose, N-acetyl glucosamine, and fucose
Cell Type	Dendritic cells, Langerhans cells
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Valladeau J, <i>et al.</i> 2000. <i>Immunity</i> 12:71.2. Mc Dermott R, <i>et al.</i> 2002. <i>Mol. Biol. Cell.</i> 13:317.3. Mizumoto N, <i>et al.</i> 2004. <i>J. Clin. Invest.</i> 113:701.4. Witte LD, <i>et al.</i> 2007. <i>Nat. Med.</i> 13:367.
Gene ID	50489

Related Protocols

[TotalSeq™-B or -C with 10x Feature Barcoding Technology](#)

Other Formats

Purified anti-human CD207 (Langerin), PE anti-human CD207 (Langerin), APC anti-human CD207 (Langerin), TotalSeq™-A0403 anti-human CD207 (Langerin), TotalSeq™-C0403 anti-human CD207 (Langerin)

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