

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

<b>Catalog# / Size</b>	352209 / 10 µg
<b>Clone</b>	10E2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CLEC4K
<b>Isotype</b>	Mouse IgG1, κ
<b>Barcode Sequence</b>	CATTCTTCACGGGAT
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Cynomolgus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Primary human Langerhans cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 1 mM EDTA
<b>Preparation</b>	The antibody was purified by chromatography and conjugated with TotalSeq™-C oligomer under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">PG - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> and the oligomer sequence is confirmed by sequencing. TotalSeq™-C antibodies are compatible with 10x Genomics Chromium Single Cell Immune Profiling <a href="#">Solution</a>.</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>
<b>Application Notes</b>	Additional reported application (for the relevant formats) includes: blocking the binding of HIV-1 to Langerhans cells <sup>1</sup> .
<b>Additional Product Notes</b>	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. <a href="#">10x</a>

[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](http://biolegend.com/totalseq).

The barcode flanking sequences are CCGAGATGTGTATAAGAGACAGNNNNNNNNNN (PCR handle), and NNNNNNNNCCCATATAAGA\*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

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

(PubMed link indicates BioLegend citation)

RRID AB\_2876664 (BioLegend Cat. No. 352209)

## Antigen Details

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<b>Structure</b>	40 kD glycoprotein
<b>Distribution</b>	Langerhans cells, dermal CD103-positive dendritic cells, and splenic CD8-positive dendritic cells
<b>Function</b>	Binding and processing antigen; capturing, internalizing and degrading HIV
<b>Ligand/Receptor</b>	Antigen containing mannose, N-acetyl glucosamine, and fucose
<b>Cell Type</b>	Dendritic cells, Langerhans cells
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Valladeau J, <i>et al.</i> 2000. <i>Immunity</i> 12:71.</li><li>2. Mc Dermott R, <i>et al.</i> 2002. <i>Mol. Biol. Cell.</i> 13:317.</li><li>3. Mizumoto N, <i>et al.</i> 2004. <i>J. Clin. Invest.</i> 113:701.</li><li>4. Witte LD, <i>et al.</i> 2007. <i>Nat. Med.</i> 13:367.</li></ol>
<b>Gene ID</b>	<a href="#">50489</a>

## Related Protocols

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

## Other Formats

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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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