

PE anti-human CD207 (Langerin) Antibody

Catalog# / Size	352203 / 25 tests 352204 / 100 tests
Clone	10E2
Regulatory Status	RUO
Other Names	CLEC4K
Isotype	Mouse IgG1, κ
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

Verified Reactivity	Human
Reported 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 BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported application (for the relevant formats) includes: blocking the binding of HIV-1 to Langerhans cells ¹ .
Application References	1. Witte LD, <i>et al.</i> 2007. <i>Nat. Med.</i> 13:367. (Block)
Product Citations	1. Alcántara-Hernández M <i>et al.</i> 2017. <i>Immunity</i> . 47(6):1037-1050 . PubMed 2. Cavois M, <i>et al.</i> 2019. <i>PLoS One</i> . 14:e0221181. PubMed
RRID	AB_10900993 (BioLegend Cat. No. 352203) AB_10897451 (BioLegend Cat. No. 352204)

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

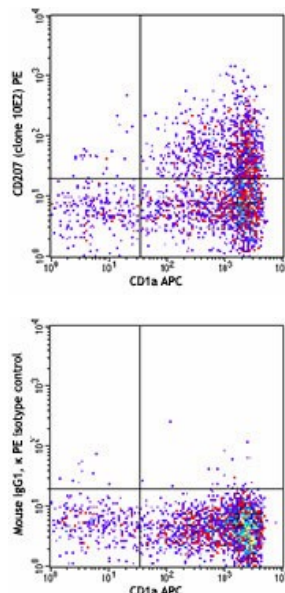
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

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)

Product Data



Monocyte-derived Langerhans cells were stimulated with recombinant human GM-CSF, TGF- β and IL-4 for 3 days, followed by an additional 3-day culture with rhGM-CSF and TGF- β . They were then stained with CD1a APC and CD207 (clone 10E2) PE (top) or mouse IgG1, κ PE isotype control (bottom).

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