# abcam

# Product datasheet

# Anti-Langerin antibody [EPR15863] ab192027



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#### Overview

**Product name** Anti-Langerin antibody [EPR15863]

**Description** Rabbit monoclonal [EPR15863] to Langerin

**Host species** Rabbit

**Tested applications** Suitable for: IHC-P Species reactivity Reacts with: Human

**Immunogen** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control IHC-P: Human skin tissue.

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

## **Properties**

**Form** 

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

**Purity** Protein A purified

Monoclonal Clonality Clone number EPR15863

Isotype lqG

#### **Applications**

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab192027 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

### **Target**

**Function** 

Calcium-dependent lectin displaying mannose-binding specificity. Induces the formation of Birbeck granules (BGs); is a potent regulator of membrane superimposition and zippering. Binds to sulfated as well as mannosylated glycans, keratan sulfate (KS) and beta-glucans. Facilitates uptake of antigens and is involved in the routing and/or processing of antigen for presentation to T cells. Major receptor on primary Langerhans cells for Candida species, Saccharomyces species, and Malassezia furfur. Protects against human immunodeficiency virus-1 (HIV-1) infection. Binds to high-mannose structures present on the envelope glycoprotein which is followed by subsequent targeting of the virus to the Birbeck granules leading to its rapid degradation.

Tissue specificity

 ${\bf Exclusively\ expressed\ by\ Langerhans\ cells.\ Expressed\ in\ astrocytoma\ and\ malignant}$ 

ependymoma, but not in normal brain tissues.

Involvement in disease

Defects in CD207 are the cause of Birbeck granule deficiency (BIRGD) [MIM:613393]. It is a condition characterized by the absence of Birbeck granules in epidermal Langerhans cells. Despite the lack of Birbeck granules Langerhans cells are present in normal numbers and have

normal morphologic characteristics and antigen-presenting capacity.

Sequence similarities

Contains 1 C-type lectin domain.

**Domain** 

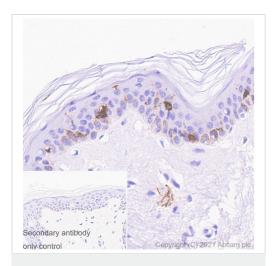
The C-type lectin domain mediates dual recognition of both sulfated and mannosylated glycans.

**Cellular localization** 

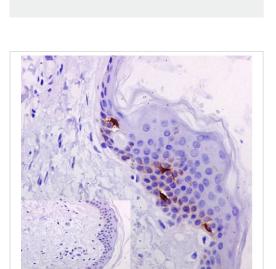
Membrane. Found in Birbeck granules (BGs), which are organelles consisting of superimposed

and zippered membranes.

# **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Langerin antibody
[EPR15863] (ab192027)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Langerin antibody
[EPR15863] (ab192027)

Immunohistochemical analysis of Paraffin-embedded sections of human skin tissue labelling Langerin with ab192027 at 1/1000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (<a href="mailto:ab209101">ab209101</a>). Positive staining on the Langerhans cells in the human skin is observed. Counter-stained with Hematoxylin.

**Secondary antibody only control:** Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (<u>ab209101</u>).

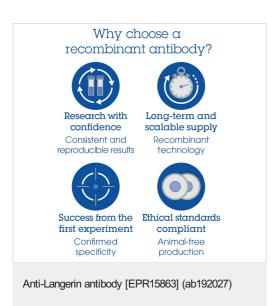
Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes.

The section was incubated with ab192027 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling Langerin with ab192027 at 1/1000 dilution, followed by prediluted HRP Polymer for Rabbit/Mouse IgG. Counter stained with Hematoxylin. The negative control utilized PBS instead of primary antibody.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



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

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