

Product datasheet for **TA355310**

Langerin (CD207) Mouse Monoclonal Antibody [Clone ID: 12D6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	12D6
Applications:	IHC
Recommended Dilution:	1:50
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Prokaryotic recombinant protein of 29 kD corresponding to the external domain of the langerin molecule
Specificity:	Human langerin
Formulation:	Liquid tissue culture supernatant containing sodium azide as a preservative
Conjugation:	Unconjugated
Storage:	Store at 2-8°C
Stability:	12 months
Gene Name:	CD207 molecule
Database Link:	Entrez Gene 50489 Human Q9UJ71



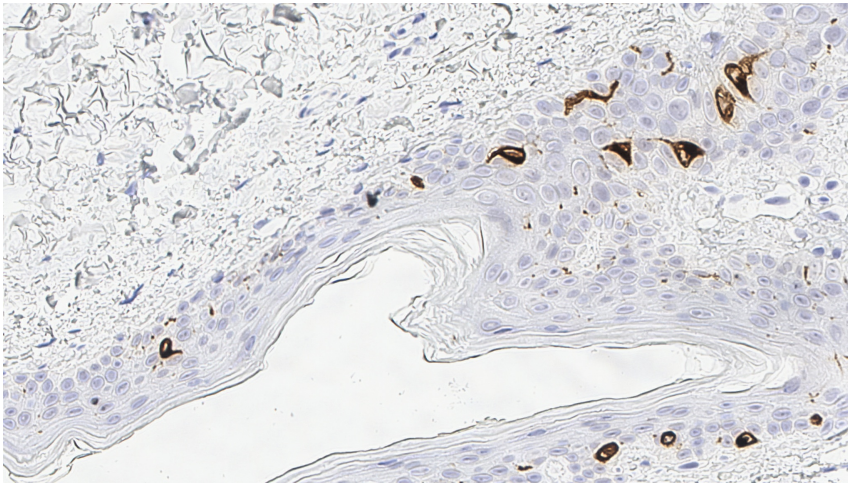
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Background:

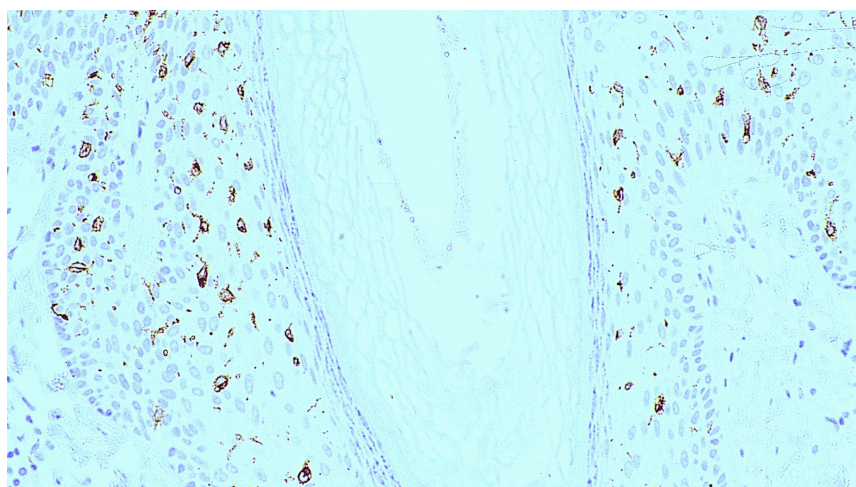
Langerin is a type II transmembrane C-type lectin which has mannose-binding specificity. It is a 40 kD protein restricted to Langerhans cells that is involved in the internalization of cell surface material in these immature dendritic cells. Dendritic cells are antigen-presenting cells that are required for initiation of a specific T cell-driven immune response. These cells are found in non-lymphoid tissue as immature cells whose primary function is to capture antigen through specialized surface membrane endocytic structures or through macropinocytosis. The dendritic cells migrate to secondary lymphoid tissue and mature into efficient antigen presenting cells. A part of the maturation process includes the loss of adhesion receptors such as E-cadherin and the disappearance of Birbeck granules. Although Langerin is reported to be located on the cell surface, it can be rapidly internalized following ligand capture into Birbeck granules. In fact, Langerin is a potent inducer of membrane superimposition and zippering leading to Birbeck granule formation. In reports it has been suggested that the induction of Birbeck granules is a consequence of the antigen-capture function of Langerin allowing passage into these organelles and providing access to a non-classical antigen processing pathway.

Synonyms:

CLEC4K; Langerin

Product images:

Human skin: immunohistochemical staining for langerin. Langerin: clone 12D6



Human skin: immunohistochemical staining for langerin. Langerin: clone 12D6