

## Langerin/CD207 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P7819
<b>Synonyms:</b>	rHuC-type lectin domain family 4 member K/CD207, His; CD207 antigen; langerin; CD207; C-type lectin domain family 4 member K; C-type lectin domainfamily 4, member K
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	AAH22278.1 (Y64-P328)
<b>Gene ID:</b>	50489
<b>Molecular Weight:</b>	30-40 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> Y P R F M G T I S D   V K T N V Q L L K G   R V D N I S T L D S   E I K K N S D G M E A A G V Q I Q M V N   E S L G Y V R S Q F   L K L K T S V E K A   N A Q I Q I L T R S W E E V S T L N A Q   I P E L K S D L E K   A S A L N T K I R A   L Q G S L E N M S K L L K R Q N D I L Q   V V S Q G W K Y F K   G N F Y Y F S L I P   K T W Y S A E Q F C V S R N S H L T S V   T S E S E Q E F L Y   K T A G G L I Y W I   G L T K A G M E G D W S W V D D T P F N   K V Q S V R F W I P   G E P N N A G N N E   H C G N I K A P S L Q A W N D A P C D K   T F L F I C K R P Y   V P S E P           </pre>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	CLC4K protein, a calcium-dependent lectin encoded by CD207, belongs to the C-type lectin domain family. CLC4K has mannose-binding specificity and is involved in antigen presentation to T cells. CLC4K is the major receptor for Candida, Saccharomyces, and Malassezia furfur on primary Langerhans cells. Langerhans cells are specialized antigen-presenting cells located within the epithelium of the epidermis and mucosa. Upon contact with Langerhans cells, pathogens are captured by the C-type lectin langerin and internalized into structurally unique vesicles called Birbeck granules (BGs). CLC4K
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induces the formation of Birbeck granules and protects against human immunodeficiency virus 1 (HIV-1) infection. Molecular mechanisms for membrane zipping exist during Birbeck granule biogenesis, and CLC4K is a potent regulator of membrane stacking and zipping. CLC4K binds to high-mannose structures present on the envelope glycoprotein and subsequently targets the virus to Birbeck particles, causing their rapid degradation. Langerhans cell histiocytosis (LCH) is a disorder characterized by clonal expansion of myeloid precursor cells that differentiate into CD1a1/CD207 cells within the lesion. Therefore, detection of clonal tumor proliferation with expression of CD1a, CD207 (Langerin), and S100 can help diagnose LCH.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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