CD207 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD207, Monoclonal Antibody
Full Product Name	Mouse Monoclonal Antibody to CD207
Product Gene Name	anti-CD207 antibody
Product Synonym Gene Name	CLEC4K
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	1C5A1
Host	Mouse
Molecular Weight	36.7kDa
OMIM	604862
3D Structure	ModBase 3D Structure for Q9UJ71
Immunogen	Amino acids 155-328, corresponding to sequence within the extracellular domain
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for anti-CD207 antibody	MBS8537111 is an antibody targeting CD207. Also known as Mouse Monoclonal Antibody to CD207. Host: Mouse.
Other Notes	Small volumes of anti-CD207 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD207. It may not necessarily be applicable to this product.

NCBI GI #	557357745
NCBI GeneID	50489
UniProt Primary Accession #	Q9UJ71
UniProt Related Accession #	Q9UJ71
GenBank Nucleotide #	NP_056532.4
NCBI Official Full Name	C-type lectin domain family 4 member K
NCBI Official Synonym Full Names	CD207 molecule
NCBI Official Symbol	CD207
NCBI Official Synonym Symbols	CLEC4K
UniProt Protein Name	C-type lectin domain family 4 member K
UniProt Synonym Protein Names	Langerin; CD_antigen: CD207
Protein Family	C-type lectin domain family

UniProt Gene Name	CD207
UniProt Synonym Gene Names	CLEC4K
UniProt Entry Name	CLC4K_HUMAN
NCBI Protein Information	C-type lectin domain family 4 member K
NCBI Summary for CD207	The protein encoded by this gene is expressed only in Langerhans cells which are immature dendritic cells of the epidermis and mucosa. It is localized in the Birbeck granules, organelles present in the cytoplasm of Langerhans cells and consisting of superimposed and zippered membranes. It is a C-type lectin with mannose binding specificity, and it has been proposed that mannose binding by this protein leads to internalization of antigen into Birbeck granules and providing access to a nonclassical antigen-processing pathway. Mutations in this gene result in Birbeck granules deficiency or loss of sugar binding activity. [provided by RefSeq, Aug 2010]
UniProt Comments for CD207	langerin: 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. Homotrimer. Exclusively expressed by Langerhans cells. Expressed in astrocytoma and malignant ependymoma, but not in normal brain tissues. Protein type: Membrane protein, integral; Receptor, misc. Chromosomal Location of Human Ortholog: 2p13 Cellular Component: early endosome membrane; endocytic vesicle; plasma membrane Molecular Function: carbohydrate binding; mannose binding Biological Process: antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; defense response to virus; receptor-mediated endocytosis Disease: Birbeck Granule Deficiency
Research Articles on CD207	**1.** Binding analysis between purified long and short forms of langerin and a series of keratin sulfate disaccharide components shows that the binding critically requires the 6-sulfation of Gal and that the long form of langerin displays higher affinity than the short form.
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