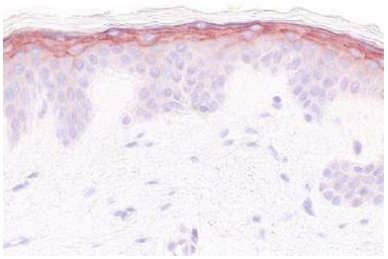
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	LCE3, Human, clone 7		
Catalog number	HM2381-100UG		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG2b	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #		1,2	1			1		
Yes		•	•			•		
No								
N.D.	•			•	•		•	•

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC-P: paraffin embedded sections of skin/keratinocytes. Antibody dilution used was 1:1000.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IA: Antibody 7 was used in a direct ELISA (Ref. 1).
- IHC-P: All tissues and skin equivalents were fixed for 4 hours in 4% buffered formalin, processed and embedded in paraffin. Sections (6 µm) were processed for immunohistochemistry and immunofluorescence analyses (Ref. 1).

General Information

Description

Monoclonal antibody clone 7 recognizes human late cornified envelop (LCE)-3 proteins, with increased affinity for LCE3-, B/D&E. Although the exact mechanism is still unknown, psoriasis and psoriatic arthritis are skin diseases with a strong and complex genetic background. The LCE gene cluster and especially cluster 3 is associated with these diseases. Psoriasis is characterized by inflammation, epidermal hyperproliferation and keratinocyte differentiation. Many psoriasis related genes lie within the epidermal differentiation complex (EDC) region. This includes the LCE cluster genes. This cluster encodes genes for stratum corneum proteins. The LCE cluster is divided into 6 groups (LCE1-6) and the LCE3 cluster encompasses five genes (LCE3-, A/B/C/D/&E), each with its own structure and function. Besides its role during epidermal differentiation, it is revealed that LCE3 proteins, and in particular LCE3A, have an antimicrobial activity. Besides it's comparable defensin like AMP function, LCE3 proteins are small, cysteine rich and cationic. This activity can be inhibited at high ionic strength.
Furthermore, LCE3 genes and proteins are also associated with rheumatoid arthritis. Atopic dermatitis and SLE. The monoclonal antibody targets all paralogues of the psoriasis-associated LCE3 proteins, with the highest affinity for LCE3B&E. The antibody is raised against the GGPSSEGG epitope.

Immunogen GGPSSEGG

References

1. Niehues, H et al; Late cornified envelope (LCE) proteins: distinct expression patterns of LCE2 and LCE3 members suggest nonredundant roles in human epidermis and other epithelia. Brit J Derma 2016, *174*:795
2. Niehues, H et al; Psoriasis-Associated Late Cornified Envelope (LCE) Proteins Have Antibacterial Activity. JID 2017, *137*:2380

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Brenda Teunissen	25/09/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.