

Datasheet: 5390-9950

Description:	MOUSE ANTI HUMAN INVOLUCRIN
Specificity:	INVOLUCRIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	SY5
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen	■			
Immunohistology - Paraffin	■			
ELISA	■			
Immunoprecipitation	■			
Western Blotting	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Species Cross Reactivity	Reacts with: Pig, Monkey, Dog, Gorilla N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	0.5 mg/ml
Immunogen	Purified involucrin from human keratinocytes.

**External Database
Links**

UniProt:

[P07476](#)

[Related reagents](#)

Entrez Gene:

[3713](#)

IVL

[Related reagents](#)

Fusion Partners

Spleen cells from immunized Balb/c mice were fused with cells from the P3X63Ag8 murine myeloma cell line.

Specificity

Mouse anti human involucrin antibody, clone SY5 recognizes human involucrin, a 585 amino acid soluble protein encoded by the IVL gene expressed in epidermal keratinocytes as they tend towards terminal differentiation. Involucrin is produced in the stratum spinosum initially in the cell cytosol from where it moves to the cell membrane, associates with transglutaminase and becomes cross-linked to membrane proteins, offering structural support to the cell and forming a stable envelope below the plasma membrane. Mouse anti human involucrin antibody, clone SY5 recognizes an epitope between residues 421-568 of human involucrin.

Involucrin expression is seen in the normal granular cells of the epidermis associated with the plasma membrane during the early phase of cornified envelope maturation ([Ishida-Yamamoto et al. 1996](#)) and expression is increased in psoriatic epidermis with abnormal cornified envelope maturation ([Ishida-Yamamoto and Iizuka 1995](#)). Involucrin staining is also maintained, associated with the cornified epidermis in epidermolytic hyperkeratosis, a condition associated with mutations to mutations in genes coding for cytokeratins 1 and 10 ([Ishida-Yamamoto et al. 1995](#)).

**Histology Positive
Control Tissue**

MCF-7 cells. Localized to upper spinous and granular layers in normal skin.

References

1. Hudson, D.L. et al. (1992) Characterization of eight monoclonal antibodies to involucrin. [Hybridoma . 3: 367-79.](#)
2. Ishida-Yamamoto, A. et al. (1997) Involucrin and SPRR Are Synthesized Sequentially in Differentiating Cultured Epidermal Cells. [J Invest Dermatol. 108: 12-6.](#)
3. Caldelari, R. et al. (2000) Long-term culture of murine epidermal keratinocytes. [J Invest Dermatol. 114: 1064-5.](#)
4. Ishida-Yamamoto, A. et al. (1996) Immunoelectron microscopic analysis of cornified cell envelope formation in normal and psoriatic epidermis. [J Histochem Cytochem. 44: 167-75.](#)
5. Janes, S.M. and Watt, F.M. (2004) Switch from alpha5beta5 to alpha5beta6 integrin expression protects squamous cell carcinomas from anoikis. [J Cell Biol. 166: 419-31.](#)
6. Michael, M. et al. (2014) BPAG1-e restricts keratinocyte migration through control of adhesion stability. [J Invest Dermatol. 134: 773-82.](#)
7. Hanada, T. et al. (2014) Keratinization induced by air exposure in the reconstructed human epidermal model: An in vitro model of a cultured epithelial autograft [J Biosci Bioeng. pii: S1389-1723\(14\)00071-1.](#)
8. Sawant S et al. (2016) Establishment of 3D Co-Culture Models from Different Stages of Human Tongue Tumorigenesis: Utility in Understanding Neoplastic Progression. [PLoS One. 11 \(8\): e0160615.](#)
9. Srivastava, S.S. et al. (2018) Keratin 5/14-mediated cell differentiation and transformation are regulated by TAp63 and Notch-1 in oral squamous cell carcinoma-derived cells. [Oncol Rep. Mar 06 \[Epub ahead of print\].](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature

the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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