

## Datasheet: 5390-9950

<b>Description:</b>	MOUSE ANTI HUMAN INVOLUCRIN
<b>Specificity:</b>	INVOLUCRIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	SY5
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Pig, Monkey, Dog, Gorilla</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	0.5 mg/ml
<b>Immunogen</b>	Purified involucrin from human keratinocytes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P07476</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3713</a>    IVL    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_2128101
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells from the P3X63Ag8 murine myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti human involucrin antibody, clone SY5</b> 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.</p> <p>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 (<a href="#">Ishida-Yamamoto <i>et al.</i> 1996</a>) and expression is increased in psoriatic epidermis with abnormal cornified envelope maturation (<a href="#">Ishida-Yamamoto and Iizuka 1995</a>). 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 (<a href="#">Ishida-Yamamoto <i>et al.</i> 1995</a>).</p>
<b>Histology Positive Control Tissue</b>	MCF-7 cells. Localized to upper spinous and granular layers in normal skin.
<b>References</b>	<ol style="list-style-type: none"> <li>Hudson, D.L. <i>et al.</i> (1992) Characterization of eight monoclonal antibodies to involucrin. <a href="#">Hybridoma . 3: 367-79.</a></li> <li>Ishida-Yamamoto, A. <i>et al.</i> (1997) Involucrin and SPRR Are Synthesized Sequentially in Differentiating Cultured Epidermal Cells. <a href="#">J Invest Dermatol. 108: 12-6.</a></li> <li>Caldelari, R. <i>et al.</i> (2000) Long-term culture of murine epidermal keratinocytes. <a href="#">J Invest Dermatol. 114: 1064-5.</a></li> <li>Ishida-Yamamoto, A. <i>et al.</i> (1996) Immunoelectron microscopic analysis of cornified cell envelope formation in normal and psoriatic epidermis. <a href="#">J Histochem Cytochem. 44: 167-75.</a></li> <li>Janes, S.M. and Watt, F.M. (2004) Switch from alpha5beta5 to alpha6beta6 integrin</li> </ol>

- 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 \[Epub ahead of print\].](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight®800</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

### Recommended Negative Controls

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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