Product datasheet

Anti-Involucrin antibody [SY5] ab68

Overview

Product name Anti-Involucrin antibody [SY5]
Description Mouse monoclonal [SY5] to Involucrin
Host species Mouse
Tested applications Suitable for: ICC/IF, WB, IP, IHC-P, IHC-Fr, Flow Cyt
Species reactivity Reacts with: Dog, Human, Pig, Gorilla, Owl monkey
Does not react with: Mouse
Immunogen Pure involucrin from human keratinocytes.
Epitope The epitope maps between codon 421-568 of human involucrin.
Positive control MCF-7 cells. Localized to upper spinous and granular layers in Normal skin.
General notes Involucrin is the differentiation marker of human keratinocytes.
ab81216 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Properties

Form Liquid
Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer Phosphate buffered saline
Purity Immunogen affinity purified
Clonality Monoclonal
Clone number SY5
Myeloma P3x63
Isotype IgG1
Light chain type unknown

Applications

Our Abpromise guarantee covers the use of ab68 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
**Function**
Part of the insoluble cornified cell envelope (CE) of stratified squamous epithelia.

**Tissue specificity**
Keratinocytes of epidermis and other stratified squamous epithelia.

**Sequence similarities**
Belongs to the involucrin family.

**Post-translational modifications**
Substrate of transglutaminase. Some glutamines and lysines are cross-linked to other involucrin molecules, to other proteins such as keratin, desmoplakin, periplakin and envoplakin, and to lipids like omega-hydroxyceramide.

**Cellular localization**
Cytoplasm. Constituent of the scaffolding of the cornified envelope.

### Images

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Involucrin antibody [SY5] (ab68)**

Immunohistochemical analysis of Formalin fixed paraffin embedded human tonsil section labelling Involucrin with ab68 at dilution of 0.1 ug/mL.

### Application

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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
</tr>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>Use a concentration of 0.1 - 0.2 µg/ml.</td>
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<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/100.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use 1 µg for 10^6 cells.</td>
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</tbody>
</table>

**Notes**
ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Involucrin antibody [SY5] (ab68)
This image is courtesy of an anonymous abreview.

ab68 at a 1/1000 dilution staining Involucrin in human normal skin tissue by Immunohistochemistry (formalin fixed, paraffin embedded sections), incubated for 2 hours at 21°C. Heat mediated antigen retrieval step performed using citrate buffer pH 6.0. Blocked with 10% serum for 30 minutes at 21°C. Secondary used at 1/100 polyclonal Donkey anti-mouse IgG conjugated to Alexa Fluor 594 (red).

Immunohistochemical analysis of frozen Human artificial skin tissue labeling Involucrin with ab68 at 1/200 dilution.
ICC/IF image of ab68 stained MCF7 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1% BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab68, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Overlay histogram showing A431 cells stained with ab68 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab68, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H&L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in A431 cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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