involucrin (A-5): sc-398952

**BACKGROUND**

Involucrin is a precursor protein of the keratinocyte cornified envelope, which is formed beneath the inner surface of the cell membrane during terminal differentiation. Involucrin first appears in the cell cytosol but ultimately becomes cross-linked to membrane proteins by transglutaminase. During keratinocyte terminal differentiation glutamine residues of involucrin become covalently cross-linked to other envelope precursors via covalent ε-(γ-glutamyl) lysine bonds. Moreover, its large size allows involucrin to cross-link molecules that are separated by substantial distances in the cornified envelope. These properties allow a single involucrin molecule to form multiple cross-links, in multiple spatial planes, with other envelope precursors. Involucrin is specifically expressed in Chinese hamster ovarian cells (fibroblasts), PtK2 rat kangaroo kidney cells (simple epithelial) and rat epidermal keratinocytes (stratifying squamous epithelial).

**CHROMOSOMAL LOCATION**

Genetic locus: IVL (human) mapping to 1q21.3; Ivl (mouse) mapping to 3 F1.

**SOURCE**

involucrin (A-5) is a mouse monoclonal antibody raised against amino acids 1-120 mapping at the N-terminus of involucrin of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for in diagnostic procedures.

**APPLICATIONS**

involucrin (A-5) is recommended for detection of involucrin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).


Molecular Weight of involucrin precursor: 68 kDa.

Molecular Weight of involucrin: 140 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, RT-4 whole cell lysate: sc-364257 or SK-BR-3 cell lysate: sc-2218.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

![Western blot analysis of involucrin expression in SK-BR-3 (A), RT-4 (B) and normal human keratinocyte (C) whole cell lysates and human cervix tissue extract (D).](image)

![Western blot analysis of involucrin expression in MCF7 (A), RT-4 (B) and SK-BR-3 (C) whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

See involucrin (SY5): sc-21748 for involucrin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.

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