**BACKGROUND**

Profilaggrin is a large, insoluble, highly phosphorylated precursor protein containing several tandem copies of a 324 amino acid stretch. Mammalian profilaggrin is a major protein component of keratohyalin granules in the living cells of the epidermis. Keratohyalin granules contribute to the keratin content of dead cornified cells. During terminal differentiation of the epidermis, profilaggrin is proteolytically processed into active Filaggrin molecules that promote aggregation and disulfide-bond formation of keratin intermediate filaments. Active Filaggrin is present at a level of the epidermis where keratinocytes are in transition between the live nucleated granular layer and the anucleate cornified layer, suggesting that Filaggrin aids in the terminal differentiation process by facilitating apoptotic machinery.

**CHROMOSOMAL LOCATION**

Genetic locus: FLG (human) mapping to 1q21.3.

**SOURCE**

Filaggrin (AKH1) is a mouse monoclonal antibody raised against purified foreskin Filaggrin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Filaggrin (AKH1) is available conjugated to agarose (sc-66192 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-66192 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocerythrin (sc-66192 PE), fluorescein (sc-66192 FITC), Alexa Fluor® 488 (sc-66192 AF488), Alexa Fluor® 546 (sc-66192 AF546), Alexa Fluor® 594 (sc-66192 AF594) or Alexa Fluor® 647 (sc-66192 AF647), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM; and to either Alexa Fluor® 680 (sc-66192 AF680) or Alexa Fluor® 790 (sc-66192 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**APPLICATIONS**

Filaggrin (AKH1) is recommended for detection of Filaggrin and Profilaggrin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500). Suitable for use as control antibody for Filaggrin siRNA (h): sc-43364, Filaggrin shRNA Plasmid (h): sc-43364-SH and Filaggrin shRNA (h) Lentiviral Particles: sc-43364-V.

Molecular Weight of Profilaggrin: 350 kDa.

Molecular Weight of processed Filaggrin: 26-45 kDa.

**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 use in diagnostic procedures.

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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