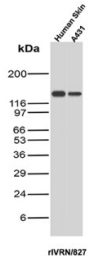
IVRN Antibody rIVRN/827 / Involucrin Monoclonal Antibody [clone rIVRN/827] (V7897)

Catalog No.	Formulation	Size
V7897-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7897-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7897SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

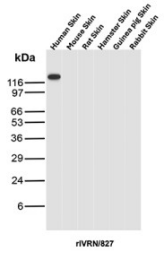
Recombinant MOUSE MONOCLONAL

Bulk quote request

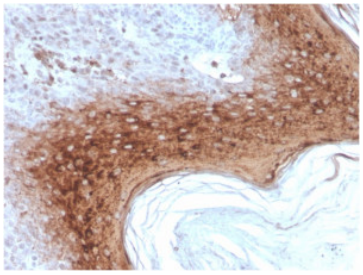
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rIVRN/827
Purity	Protein G affinity chromatography
UniProt	P07476
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This IVRN Antibody rIVRN/827 / Involucrin Monoclonal Antibody is available for research use only.



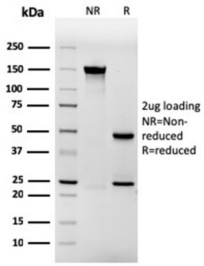
IVRN Antibody rIVRN/827 Western Blot of Human Skin and A431 Cells. Western blot testing of human skin (lane 1) and A431 epidermoid carcinoma cell (lane 2) lysates with IVRN Antibody clone rIVRN/827. A strong predominant band is detected at approximately 130-140 kDa in both samples. Although involucrin has a calculated molecular weight of approximately 68 kDa, its unusual glutamine-rich, repetitive amino acid composition results in characteristically anomalous migration on SDS-PAGE. The comparable target-sized signal in both samples demonstrates endogenous involucrin detection using this Involucrin Monoclonal Antibody.



IVRN Antibody rIVRN/827 Western Blot of Skin from Multiple Species. Western blot testing of human, mouse, rat, hamster, guinea pig, and rabbit skin tissue lysates with IVRN Antibody clone rIVRN/827. A strong predominant band at approximately 130-140 kDa is detected exclusively in human skin, while no corresponding signal is visible in the five non-human samples. The elevated apparent molecular weight is characteristic of involucrin's anomalous SDS-PAGE migration. This result demonstrates strong human specificity and no detectable cross-reactivity with the tested rodent and rabbit skin samples using this Involucrin Monoclonal Antibody.



IVRN Antibody rIVRN/827 in Human Tonsil IHC. Immunohistochemistry testing of FFPE human tonsil tissue with IVRN Antibody clone rIVRN/827. Strong brown cytoplasmic staining is concentrated in the differentiated suprabasal squamous epithelium, while the more basal epithelial region shows substantially weaker staining. The image shows the characteristic differentiation-associated distribution of involucrin within stratified squamous epithelium and demonstrates tissue detection using this Involucrin Monoclonal Antibody.



Purified IVRN Antibody rIVRN/827 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free IVRN Antibody clone rIVRN/827 under non-reducing (NR) and reducing (R) conditions with a 2 ug antibody load. The non-reduced preparation shows a predominant intact antibody band at approximately 150 kDa. Under reducing conditions, the antibody resolves into approximately 50 kDa heavy-chain and 25 kDa light-chain bands. The expected electrophoretic profile demonstrates the integrity of the purified recombinant mouse Involucrin Monoclonal Antibody preparation.

Description

IVRN Antibody rIVRN/827 recognizes involucrin, a differentiation-associated structural protein encoded by the IVL gene. Involucrin is expressed in stratified squamous epithelia and is widely used as a marker of keratinocyte differentiation. Expression increases as keratinocytes leave the proliferative basal compartment and enter the suprabasal layers, where they progressively acquire the specialized characteristics required for formation of the epidermal barrier.

Involucrin is initially synthesized as a soluble cytoplasmic protein and subsequently incorporated into the developing cornified cell envelope. The human protein contains a distinctive central region rich in glutamine-containing tandem repeats. During terminal differentiation, transglutaminases catalyze covalent crosslinking of involucrin with other structural proteins and lipids near the inner surface of the plasma membrane, contributing to formation of the highly insoluble cornified envelope.

The cornified envelope is an essential component of the protective barrier formed by terminally differentiated keratinocytes. Involucrin participates relatively early in envelope assembly and provides a substrate for subsequent crosslinking reactions involving additional differentiation-associated proteins. Its close relationship with epithelial maturation makes IVL useful for investigating epidermal development, keratinocyte differentiation, cornification, and changes in squamous epithelial phenotype.

Human involucrin has a calculated molecular weight of approximately 68 kDa but displays markedly anomalous migration during SDS-PAGE, commonly appearing at a substantially higher apparent molecular weight. This behavior is associated with the protein's unusual glutamine-rich, repetitive sequence and is an important consideration when interpreting western blot experiments targeting involucrin.

Altered involucrin expression has been studied in disorders affecting epidermal differentiation and in neoplastic transformation of squamous epithelia. Because expression is closely linked to differentiation state, involucrin is also

frequently examined in experimental models evaluating keratinocyte maturation and the transition from proliferating basal cells toward differentiated suprabasal phenotypes.

An IVRN Antibody such as clone rIVRN/827 provides a recombinant monoclonal reagent for investigating involucrin expression and epithelial differentiation, while an Involucrin Monoclonal Antibody can be used in studies of keratinocyte maturation and cornified envelope biology.

For an alternative recombinant monoclonal targeting this protein, see our Involucrin Antibody IVRN/2113R / IVL Monoclonal Antibody page.

Application Notes

Optimal dilution of the IVRN Antibody rIVRN/827 / Involucrin Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human full-length Involucrin protein was used as the immunogen for this recombinant IVRN Antibody rIVRN/827.

Storage

Store the IVRN Antibody rIVRN/827 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Involucrin antibody, IVL antibody, Keratinocyte Involucrin antibody, Epidermal Involucrin antibody, Cornified Envelope Involucrin antibody

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