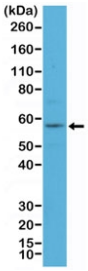
# KRT4 Antibody RM355 / Keratin 4 Rabbit Monoclonal Antibody [clone RM355] (R20377)

| Catalog No. | Formulation | Size |
|---|---|---|
| R20377-0.1ML | Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide | 100 ul |

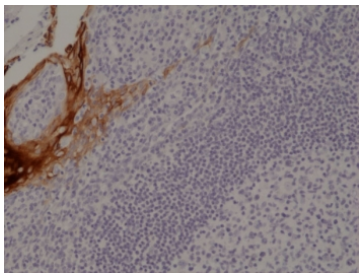
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | RM355 |
| **Purity** | Protein A purified from animal origin-free supernatant |
| **UniProt** | P19013 |
| **Localization** | Cell membrane, cytoplasm, nucleus |
| **Applications** | Immunohistochemistry (FFPE): 1:500-1:1000<br>Western blot: 1:100-1:1000 |
| **Limitations** | This KRT4 Antibody RM355 / Keratin 4 Rabbit Monoclonal Antibody is available for research use only. |




KRT4 Antibody RM355 by WB in Human A431 Cells. Western blot analysis of human A431 cell lysate using KRT4 Antibody RM355 at a 1:100 dilution. A single immunoreactive band is observed at approximately 55-60 kDa, consistent with the predicted molecular weight of cytokeratin 4 (~59 kDa). The Keratin 4 Rabbit Monoclonal Antibody detects endogenous KRT4 in human A431 cells, supporting its use for investigating epithelial keratin expression and intermediate filament biology.



KRT4 Antibody RM355 by IHC in Human Tonsil. Immunohistochemistry of FFPE human tonsil tissue using KRT4 Antibody RM355 at a 1:1000 dilution. Strong brown staining is observed in the cytoplasm of stratified squamous epithelial cells along the tissue surface, while the underlying lymphoid tissue shows little to no staining. The Keratin 4 Rabbit Monoclonal Antibody highlights the epithelial compartment, consistent with the expected distribution of KRT4 in non-keratinized stratified squamous epithelium. Nuclei are counterstained blue with hematoxylin.

## Description

KRT4 Antibody RM355 recognizes keratin 4, a type II intermediate filament protein encoded by the KRT4 gene on chromosome 12. Also known as cytokeratin 4 or CK4, this approximately 59 kDa protein is expressed predominantly in non-keratinized stratified squamous epithelia, including the esophagus, oral mucosa, and portions of the upper aerodigestive tract. KRT4 contributes to epithelial mechanical stability by participating in cytoplasmic intermediate filament networks that protect cells from physical stress. Its expression is associated with suprabasal epithelial differentiation and provides a useful marker for identifying specialized mucosal epithelial populations.

KRT4 typically forms heterodimers with keratin 13 (KRT13), a type I keratin expressed in similar epithelial compartments. These heterodimers assemble into higher-order intermediate filaments that maintain cellular architecture and help distribute mechanical forces throughout epithelial tissues. In non-keratinized stratified epithelia, KRT4 and KRT13 expression increases as cells differentiate and move away from the proliferative basal layer. This expression pattern contrasts with keratinized epidermis, where KRT1 and KRT10 predominate in suprabasal keratinocytes. The coordinated expression of keratin pairs therefore provides information about epithelial identity, differentiation, and tissue specialization.

Mutations in KRT4 are associated with white sponge nevus, an inherited disorder characterized by thickened, white plaques affecting the oral mucosa and occasionally other mucosal surfaces. Disease-associated variants can disrupt intermediate filament organization and compromise epithelial differentiation. KRT4 expression is also investigated in squamous cell carcinomas, particularly tumors arising from mucosal epithelia of the head, neck, and esophagus. Changes in KRT4 abundance may reflect altered epithelial differentiation, although expression varies according to tumor origin and differentiation state.

KRT4 is additionally studied in epithelial remodeling, mucosal injury, and disorders involving abnormal keratin expression. Western blot detection typically identifies a protein migrating near its predicted molecular weight of approximately 59 kDa. NSJ Bioreagents offers recombinant rabbit monoclonal clone RM355, developed against a C-terminal peptide of human KRT4. This antibody complements other KRT4 reagents by providing an option for investigating protein expression in human samples. A KRT4 Antibody RM355 is useful for studying mucosal epithelial differentiation, keratin filament organization, and squamous epithelial biology.

Explore our protein microarray-validated Cytokeratin 4 Antibody KRT4/2804 for investigating KRT4 expression, epithelial differentiation, and keratin filament organization.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the KRT4 Antibody RM355 / Keratin 4 Rabbit Monoclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

A peptide corresponding to the C-terminus of human CK-4 (Cytokeratin-4) was used as the immunogen for the KRT4 Antibody RM355.

## Storage

Store the KRT4 Antibody RM355 at -20oC.

## Alternate Names

Cytokeratin 4 antibody, CK4 antibody, Keratin 4 antibody, Cytokeratin-4 antibody, Keratin Type II Cytoskeletal 4 antibody, Esophageal Cytokeratin antibody


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