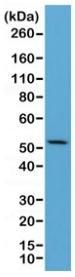
Recombinant CK7 Antibody / Cytokeratin 7 / KRT7 [clone RM284] (R20301)

Catalog No.	Formulation	Size
R20301-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

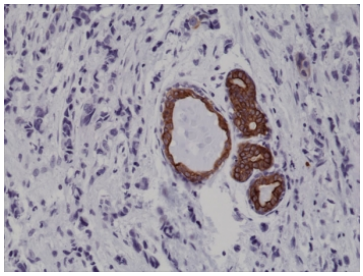
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM284
Purity	Protein A purified from animal origin-free supernatant
UniProt	P08729
Gene ID	3855
Applications	Immunohistochemistry (FFPE) : 1:200-1:1000 (1) Western Blot : 1:1000-1:2500
Limitations	This recombinant CK7 antibody is available for research use only.



Western blot of human HeLa lysate using recombinant CK7 antibody at 1:2500. Predicted molecular weight ~51 kDa.



IHC testing of FFPE human breast cancer tissue with recombinant CK7 antibody at 1:1000.

Description

The Recombinant CK7 antibody is a recombinant reagent engineered to detect cytokeratin 7 (CK7), also known as KRT7. CK7 is a type II intermediate filament protein expressed in a wide range of epithelial tissues, including glandular, ductal, and transitional epithelia. It forms heterodimers with type I cytokeratins to create the cytoskeletal network that supports cellular structure, polarity, and integrity. Because of its specific expression pattern, CK7 is widely used in diagnostic pathology to help classify tumors and determine their tissue of origin. The Recombinant CK7 antibody provides precise and reproducible detection of this marker in research and clinical settings.

The KRT7 gene, located on chromosome 12q12-q13, encodes cytokeratin 7, a protein with the canonical keratin structure of a central alpha helical rod flanked by head and tail domains. CK7 expression is characteristic of epithelia lining the lung, breast ducts, urinary tract, and female reproductive system, while it is typically absent from gastrointestinal epithelia such as colon and small intestine. This distinct distribution makes CK7 a useful diagnostic marker, especially when interpreted alongside CK20 expression to identify carcinoma subtypes. The Recombinant CK7 antibody ensures consistent performance across applications, allowing reliable detection in both tissue sections and cultured cells.

In immunohistochemistry, the Recombinant CK7 antibody highlights cytoplasmic filament networks in tissues such as lung and breast, where it produces strong and specific staining. In tumor diagnostics, CK7 expression is commonly observed in adenocarcinomas of the lung, ovary, and endometrium, whereas its absence helps exclude gastrointestinal origins. In immunofluorescence, the antibody reveals filamentous staining patterns consistent with keratin cytoskeleton organization. In western blotting, it detects CK7 protein in tissue and cell lysates, supporting quantitative analyses. Recombinant design ensures high reproducibility and avoids batch variability seen with hybridoma derived antibodies.

The Recombinant CK7 antibody is particularly valuable in oncology, where CK7 positivity, in combination with CK20 expression patterns, provides critical information for identifying the origin of metastatic tumors. It is also applied in developmental biology and stem cell research to characterize epithelial differentiation. Synonym phrases such as recombinant cytokeratin 7 antibody, recombinant KRT7 antibody, and recombinant epithelial keratin 7 antibody improve product discoverability for researchers working across multiple fields.

By offering validated and reproducible detection, the Recombinant CK7 antibody supports investigations into epithelial biology, cancer diagnostics, and tissue development. NSJ Bioreagents ensures strict quality control for this reagent, giving researchers confidence in its application across immunohistochemistry, immunofluorescence, and western blotting. With specificity for KRT7, the Recombinant CK7 antibody is a dependable tool for advancing both basic research and translational studies in epithelial pathology.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant CK7 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.

Immunogen

A peptide corresponding to the C-terminus of human CK7/Cytokeratin 7 was used as the immunogen for this recombinant CK7 antibody.

Storage

Store the recombinant CK7 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).