

KRT20 Antibody / Cytokeratin 20 / CK20 [clone CDI-11] (FY13371)

Catalog No.	Formulation	Size
FY13371	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant	RABBIT MONOCLONAL	Bulk quote request
Availability	2-3 weeks	
Species Reactivity	Human, Mouse, Rat	
Format	Liquid	
Clonality	Recombinant Rabbit Monoclonal	
Isotype	Rabbit IgG	
Clone Name	CDI-11	
Purity	Affinity-chromatography	
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.	
UniProt	P35900	
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Immunoprecipitation : 2-4ug/500ug of lysate Flow Cytometry : 1-3ug/million cells	
Limitations	This KRT20 antibody is available for research use only.	

Description

KRT20 antibody detects Cytokeratin 20, an intermediate filament protein encoded by the KRT20 gene on chromosome 17q21.2. Cytokeratin 20 (CK20) is a member of the type I keratin family and is expressed primarily in epithelial cells of the gastrointestinal tract, urothelium, and Merkel cells of the skin. CK20 provides structural stability to epithelial cells and serves as a diagnostic marker in pathology for identifying tissue origin and differentiation status in epithelial tumors. Its expression pattern is especially valuable for distinguishing colorectal, gastric, and bladder carcinomas.

Structurally, CK20 is a 46 kDa cytoskeletal protein composed of a central alpha-helical rod domain flanked by non-helical head and tail domains, allowing filament assembly with type II keratins such as KRT8. CK20 belongs to the cytokeratin

family of intermediate filaments that provide mechanical resilience and maintain epithelial integrity. Co-localization studies show CK20 distributed in the cytoplasm and perinuclear region, forming filamentous networks characteristic of simple epithelia.

Functionally, CK20 supports epithelial cell shape, polarity, and resistance to mechanical stress. It interacts with desmosomal and hemidesmosomal components to anchor the cytoskeleton to cell junctions, maintaining tissue architecture. CK20 also participates in cellular differentiation programs, serving as a marker of terminal differentiation in gastrointestinal epithelia and Merkel cells. In the urothelium, CK20 expression increases during tissue repair and regeneration.

Clinically, CK20 serves as an important immunohistochemical marker in cancer diagnostics. It is strongly expressed in colorectal adenocarcinomas, transitional cell carcinomas of the bladder, and some gastric cancers, while absent in most lung, breast, and prostate carcinomas. Combined with CK7 expression patterns, CK20 staining aids in identifying metastatic tumor origin. Dysregulation of KRT20 gene expression has been linked to epithelial barrier dysfunction and tumor progression. Pathway involvement includes cytoskeletal organization, epithelial differentiation, and stress response signaling.

Immunohistochemical staining using KRT20 antibody reveals strong cytoplasmic filamentous localization in gastrointestinal and urothelial epithelia. The KRT20 antibody from NSJ Bioreagents is an ideal reagent for epithelial marker studies, cancer diagnostics, and cytoskeletal research.

Application Notes

Optimal dilution of the KRT20 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Cytokeratin 20 was used as the immunogen for the KRT20 antibody.

Storage

Store the KRT20 antibody at -20oC.