abcam

ab320565

# Alexa Fluor® 555 Anti-Cytokeratin 20 antibody [SP33]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Conjugation** | Alexa Fluor® 555 |
| **Excitation/Emission** | Ex: 555nm, Em: 565nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | SP33 |
| **Purification technique** | Affinity purification Protein A/G |
| **Concentration** | 0.5 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Antibody Labelling

### Expected

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Target Binding Affinity

### Expected

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt

### Expected

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## ICC/IF

### Expected

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Expected

| | |
|---|---|
| **Species** | Human, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Target data

See full target information KRT20

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|---|---|
| **Function** | Plays a significant role in maintaining keratin filament organization in intestinal epithelia. When phosphorylated, plays a role in the secretion of mucin in the small intestine (By similarity). |

## Storage

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| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle, Store in the dark |

## Notes

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

**How are conjugated primary antibodies validated?**
This conjugated primary antibody is released using a quantitative quality control method that evaluates binding affinity post-conjugation and efficiency of antibody labeling.
For suitable applications and species reactivity, please refer to the unconjugated version of this clone.

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## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | Cytokeratin 20 often known as CK20 KRT20 or keratin 20 is a type of intermediate filament protein that is highly specific to epithelial cells. This cytoskeletal protein has a molecular weight of approximately 46.5 kDa. Cytokeratin 20 is primarily found in the gastric and intestinal epithelium urothelium and Merkel cells. Its function as part of the cytoskeleton provides structural integrity and strength to cells maintaining their shape and resilience against mechanical stress. |
| **Biological function summary** | Cytokeratin 20 is essential in cellular differentiation and maintenance within epithelial tissues. It plays an important role in the structural framework of epithelial cells by integrating into the cytoskeletal network which includes other keratins. Typically cytokeratin 20 forms heterodimers with keratin 8 contributing to the assembly of intermediate filaments. These interactions maintain cell stability and are involved in cellular processes such as migration and proliferation. |
| **Pathways** | Cytokeratin 20 participates in the framework of intermediate filament signaling influencing cell motility and secretion in epithelial tissues. It contributes mainly to the keratinization pathway which is critical in forming a protective barrier in epithelial cells. Additionally it is related to cell adhesion and signalling pathways that are important for tissue integrity. Connections with keratin 8 and other cytoskeletal proteins facilitate signal transduction processes necessary for epithelial homeostasis and response to injury. |
| **Associated diseases and disorders** | Cytokeratin 20 serves as a valuable marker for identifying specific cancer types particularly colorectal adenocarcinomas and Merkel cell carcinoma. The presence of cytokeratin 20 is often used in immunohistochemistry for cancer diagnosis and prognosis. Its expression pattern is notably distinct helping differentiate between various adenocarcinomas. In colorectal cancer it shows a unique interaction with proteins like keratin 8 supporting the tumor's structural environment and influencing tumorigenesis and metastasis processes. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

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We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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Terms & Conditions.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.