

DESCRIPTION

Species Reactivity	Human
Specificity	Cytokeratin 19 antibodies are ideal for immunocytochemistry colocalization studies. The unconjugated antibody detects human Cytokeratin 19 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human Cytokeratin 14 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Cytokeratin 19 Thr2-Leu400 Accession # P08727
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

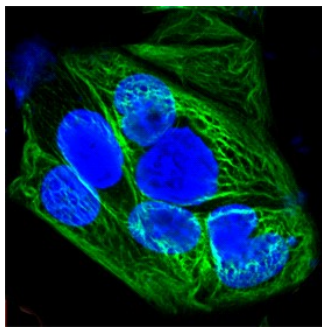
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	1:10 dilution	See Below

DATA

Immunocytochemistry



Cytokeratin 19 in MCF-7 Human Cell Line. Cytokeratin 19 was detected in formaldehyde fixed MCF-7 human breast cancer cell line using Sheep Anti-Human Cytokeratin 19 Alexa Fluor® 488-conjugated Antigen Affinity-purified Polyclonal Antibody (green; Catalog # IC3506G) at 1:10 dilution overnight at 4 ° C and counterstained with DAPI (blue). Specific staining was localized to intermediate filaments. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Cytokeratin 19 (Keratin, type I cytoskeletal 19; also KRT-19, CK19 and Keratin-19) is a 40-45 kDa, acidic Class I keratin member of the intermediate filament family of proteins. Individual keratins are always expressed in tandem with a second keratin, and these are found in all epithelial cells. The class I KRT-19 heterodimerizes/polymerizes with 50-52 kDa class II KRT-8 (plus KRT-5 and -7) to form 8-10 nm filaments in epidermal stem cells, secretory gland (sweat; mammary; bile duct) simple epithelium, and neuroendocrine epidermal Merkel cells. It may represent a viable marker for skin stem cells. In skin, Cytokeratin 19 forms filaments in the fetal epithelium, and then progressively decreases with age, being virtually absent by age 17. Human Cytokeratin 19 is 400 amino acids (aa) in length. It contains an N-terminal "head" region (aa 1-79) and a subsequent "rod" region (aa 80-387), but is absent a typical C-terminal tail region. Cytokeratin 19 possesses at least 5 utilized phosphorylation sites plus one acetylated Lys residue. Based on other keratins, and the presence of an Asp at position 238, there may be caspase cleavage-generated isoforms. Full length human Cytokeratin 19 (aa 2-400) shares 82% aa sequence identity with mouse Cytokeratin 19.

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