

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cytokeratin 19 in direct ELISAs
Source	Monoclonal Mouse IgG _{2B} Clone # 1042608
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived human Cytokeratin 19 Gln311-Lys370 Accession # P08727
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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.

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was MCF-7 breast carcinoma cell line fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005)
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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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