

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cytokeratin 18 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Cytokeratin 14 (KRT14) is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Cytokeratin 18 Ala239-Asp397 Accession # P05783
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cytokeratin 18; also KRT-18 (Keratin, type I cytoskeletal 18), Cell proliferation-inducing gene 46 and Keratin-18) is a 44-46 kDa Class I (large keratins of acidic pH) 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 Cytokeratin 18 heterodimerizes/polymerizes with 50-52 kDa class II KRT-8 to form 8-10 nm filaments in single strata plus hepatic epithelia. Cytokeratin 18 and -8 are the first keratins to appear in the mammalian embryo. In the adult, Cytokeratin 18 appears to participate in subtractions and additions to the plasma membrane. In this regard, a number of intracellular proteins interact with Cytokeratin 18, including 14-3-3, HSPc70 and Mrj. Cytokeratin 18 may also be O-glycosylated, and when so, serves to promote Akt-1 activity, thus protecting against apoptosis. Human Cytokeratin 18 is 430 amino acids (aa) in length. It contains an N-terminal "head" region (aa 1-79), a subsequent "rod" region (aa 80-387) with two coiled segments, and a C-terminal tail region. Cytokeratin 18 possesses at least 19 utilized phosphorylation sites plus five acetylated Lys residues. There are multiple isoforms that range from 20-40 kDa in size and are the result of caspase cleavage. A principal cleavage site occurs after Asp238. Over aa 239-397, human Cytokeratin 18 shares 86% aa sequence identity with mouse Cytokeratin 18.

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