

## DESCRIPTION

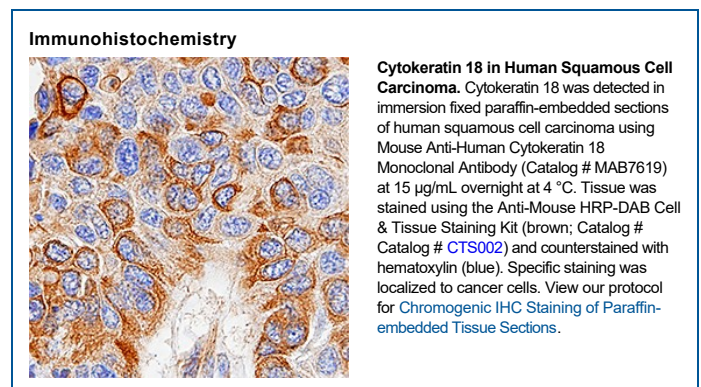
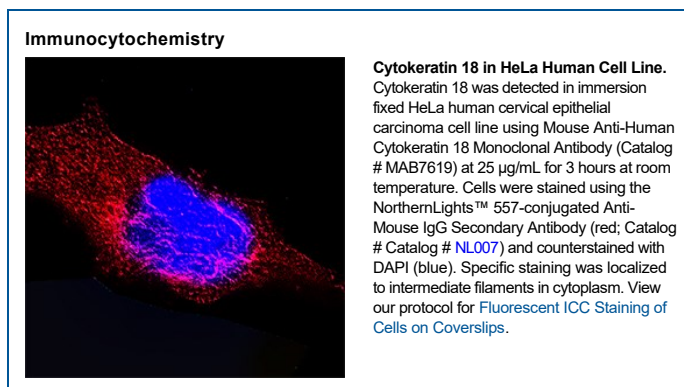
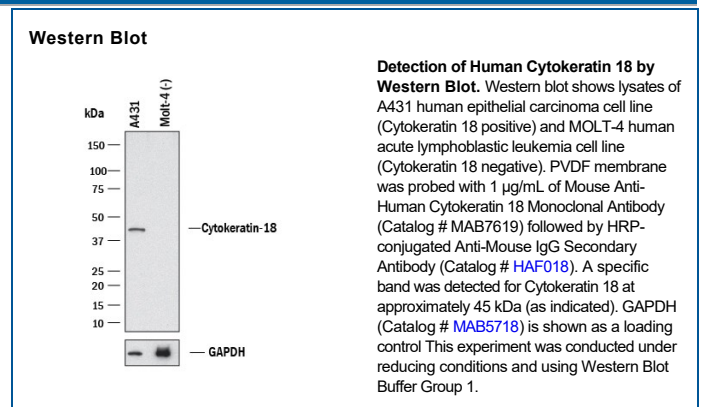
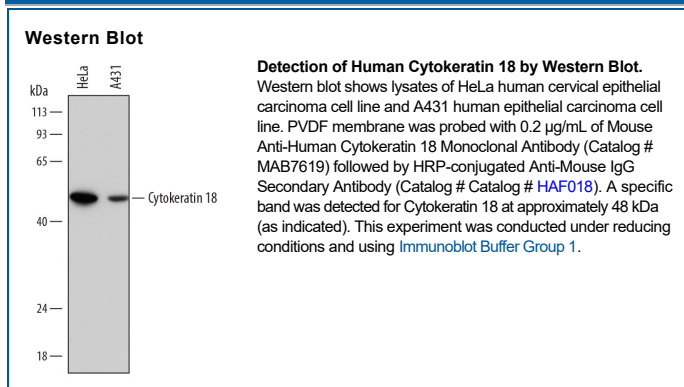
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Cytokeratin 18 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 810811
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Cytokeratin 18 Ala239-Asp397 Accession # P05783
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

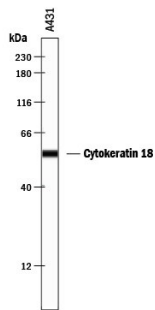
**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.2-1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	2 µg/mL	See Below

## DATA



## Simple Western



**Detection of Human Cytokeratin 18 by Simple Western™.** Simple Western lane view shows lysates of A431 human epithelial carcinoma cell line, loaded at 0.5 mg/mL. A specific band was detected for Cytokeratin 18 at approximately 55 kDa (as indicated) using 2 µg/mL of Mouse Anti-Human Cytokeratin 18 Monoclonal Antibody (Catalog # MAB7619). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Cytokeratin 18; also KRT-18 (Keratin, type I cytoskeletal 18), Cell proliferation-inducing gene 46 and Keratin-18) is a 44-48 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.