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Antibodies to Cytokeratin-7 (Cyt7)

Cytokeratin-7 (Cyt7) antibodies. Catalog # Cyt7-701AP, P-Cyt7, PC-Cyt7.

Accession # P08729 and Alternate Nomenclature: Keratin-7, Keratin, type II cytoskeletal 7, CK-7, K7, Type-II Keratin kb7, Sarcolectin

Cytokeratin-7 (Cyt7) is a member of fibrous structural proteins known as cytokeratins or keratins. Proteins in this group are a key component in the outer layer of human skin, hair and nails (1). They are heterotetramers composed to two type I and type II subunits. Type I cytokeratins are represented by the type I intermediate filaments of the intracytoplasmic cytoskeleton, whereas type II cytokeratins comprise the type II intermediate filaments of the intracytoplasmic cytoskeleton (2). Type II cytokeratins consists of basic or neutral proteins. Cyt7 is a basic cytokeratins, located at human chromosome 12q12-q13. It is known to stimulate DNA synthesis in cells; it is also known to block interferon-dependent interphase (3). Studies have reported that Cyt7 can be used as a marker to distinguish a normal tissue from a lesional tissue. In one study, it was used to determine the primary site of metastatic lesion (4). Cyt7 may also be helpful in distinguishing a large cell neuroendocrine carcinoma from a small cell lung carcinoma by analyzing and comparing the expression of this protein in both carcinomas (5).

Cyt7 is found on many glandular and transitional epithelia but not on stratified squamous epithelia. More specifically, it is expressed in the epithelial cells of ovary, lungs and breast but it is absent in the epithelial cells of colon, prostate or GI tract (6). Therefore, expression of Cyt7 in colon could be used as a positive marker for colorectal carcinogenesis (7). Cyt7 was also implicated in regulating the translation of human papillomavirus type 16 E7 mRNA (3). Cyt7 is approximately a 59kDa protein (469 amino acids).

The Cyt7 antibodies were generated using peptide corresponding to human Cyt7 protein. Cyt7 antibodies are affinity purified over immobilized antigen based affinity chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. FabGennix Int. Inc. will provide limited quantities of antigenic blocking protein for competition assays involving Cyt7 antibodies. Antibodies to Cyt7 (Cyt7-701AP) will label ~59kDa protein in Western blot positive control for Cyt7 (PC-Cyt7) and several other tissues. FabGennix Inc. will conjugate this and other antibodies from its catalog to either secondary enzymes (alk-Pase or HRP) or fluorescent probes at a nominal cost upon request. FabGennix also provides custom antibody production services for researchers that are looking for high affinity mono and polyclonal antibodies in various species. We specialize in making application specific antibodies that are useful in IHC, confocal and other applications where native antigen is detected. For a complete listing of all FabGennix antibodies please visit www.Fabgennix.com.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Volume
Cyt7-701AP	Rabbit	Affinity purified Cyt7 antibodies	R, m, h, others	100 ug	200ul
FITC-Cyt7	Rabbit	FITC-conjugated Cyt7 antibodies	R, m, h, others	100ug	200ul
P-Cyt7	n/a	Antigenic blocking peptide for Cyt7-701AP	n/a	250 ug	100ul
PC-Cyt7	n/a	WB positive control for Cyt7	n/a	For 5 app.	150ul

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen: Synthetic peptide corresponding to unique epitope on Cyt7. The peptide sequence was selected from C-terminal, amino acids between aa 400-500. This peptide was covalently modified post-synthetically to achieve desired antigenicity.

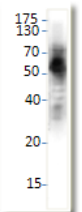
Concentration: Cyt7-701AP: IgG concentration 0.64-0.72 mg/ml in antibody stabilization buffer.

Applications: Antibody Cyt7-701AP is ideal for WB and ELISA applications, other applications have not been tested. The species cross reactivity for these antibodies have not been examined fully. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB: > 1:500; IMM & i.p pull-down assays: n.d; IHC n.d. ELISA <1:10,000. Application of this antibody in protocols not listed here does not necessarily exclude its use in such procedures.

Reactivity: This antibody detects a single band of approximately 59kDa in PC-Cyt7 samples.

Protocols: Standard protocol for various applications (WB; IMM and IHC) of this antibody is provided with the product specification sheet; however, FabGennix Inc. strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.

Form/Storage: The antiserum is supplied in antibody stabilization buffer. The affinity-purified antibodies are isolated on immobilized antigen-affinity column and supplied as stabilized product. Store at -20°C for long-term storage. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer). Working solutions of antibodies in DiluOBuffer should be filtered through 0.45um filter after every use for long-term storage.



Western blot of Cytokeratin 7 antibody Cyt7-701AP with PC-Cyt7 sample. Antibody dilution 1:500 in diluOBuffer. MW of Cytokeratin 7 is 59kDa.

Notes: Briefly centrifuge to collect liquid, heat or boil PC-Cyt7 tube for 1-2 minutes to dissolve any precipitate before use. This product is "ready-to-use" for electrophoresis. After thawing store at room temperature. Repeated freezing and thawing may result in appearance of higher MW immunoreactive bands.

New Reagents: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripOBuffer (Cat FGI-1989). Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating required. Block in 5X diluOBuffer and you are ready for blotting with a new antibody

References:

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* For users who may require large amounts of Cyt7-701AP, please enquire about bulk material discounts.
 This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

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