

**BM5047P****Monoclonal Antibody to Cytokeratin 13 - Purified**

<b>Alternate names:</b>	CK-13, CK13, K13, KRT-13, KRT13, Keratin type I cytoskeletal 13, Keratin-13
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	<p>Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in human epithelial tissues by at least 20 different polypeptides. They range in molecular weight between 40 kDa and 68 kDa and isoelectric pH between 4.9-7.8.</p> <p>The individual human cytokeratins are numbered 1 to 20.</p> <p>The various epithelia in the human body usually express cytokeratins which are not only characteristic of the type of epithelium, but also related to the degree of maturation or differentiation within an epithelium. Cytokeratin subtype expression patterns are used to an increasing extent in the distinction of different types of epithelial malignancies. The cytokeratin antibodies are not only of assistance in the differential diagnosis of tumors using immunohistochemistry on tissue sections, but are also a useful tool in cytopathology and flow cytometric assays.</p>
<b>Uniprot ID:</b>	<a href="#">P13646</a>
<b>NCBI:</b>	<a href="#">NP_002265.2</a>
<b>GeneID:</b>	<a href="#">3860</a>
<b>Host / Isotype:</b>	Mouse / IgG2a
<b>Recommended Isotype Controls:</b>	AM03096PU-N
<b>Clone:</b>	1C7
<b>Immunogen:</b>	Cytokeratin preparation from Human esophagus.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction <b>Buffer System:</b> PBS <b>Preservatives:</b> 0.09% Sodium Azide
<b>Applications:</b>	<b>Immunofluorescence.</b> <b>Western blot:</b> 1/100-1/1000. <b>Immunohistochemistry on Frozen sections:</b> 1/25-1/200 ABC as detection reagent. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	1C7 reacts exclusively with Cytokeratin 13 which is present in non-cornified squamous epithelia, except cornea, and transitional epithelial regions, with the exception of basal cell layers of some stratified epithelia.
<b>Species Reactivity:</b>	<b>Tested:</b> Human, Rat and Zebrafish
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freeze-thaw cycles. Shelf life: One year from despatch.

**General Readings:**

1. van Muijen GN, Ruiters DJ, Franke WW, Achtstätter T, Haasnoot WH, Ponc M, et al. Cell type heterogeneity of cytokeratin expression in complex epithelia and carcinomas as demonstrated by monoclonal antibodies specific for cytokeratins nos. 4 and 13. *Exp Cell Res.* 1986 Jan;162(1):97-113. PubMed PMID: 2415382.
2. Weikel W, Wagner R, Moll R. Characterization of subcolumnar reserve cells and other epithelia of human uterine cervix. Demonstration of diverse cytokeratin polypeptides in reserve cells. *Virchows Arch B Cell Pathol Incl Mol Pathol.* 1987;54(2):98-110. PubMed PMID: 2447698.
3. Smedts F, Ramaekers F, Robben H, Pruszczynski M, van Muijen G, Lane B, et al. Changing patterns of keratin expression during progression of cervical intraepithelial neoplasia. *Am J Pathol.* 1990 Mar;136(3):657-68. PubMed PMID: 1690513.
4. van Niekerk CC, Boerman OC, Ramaekers FC, Poels LG. Marker profile of different phases in the transition of normal human ovarian epithelium to ovarian carcinomas. *Am J Pathol.* 1991 Feb;138(2):455-63. PubMed PMID: 1992770.
5. Smedts F, Ramaekers F, Troyanovsky S, Pruszczynski M, Link M, Lane B, et al. Keratin expression in cervical cancer. *Am J Pathol.* 1992 Aug;141(2):497-511. PubMed PMID: 1379783.
6. Bauwens LJ, De Groot JC, Ramaekers FC, Veldman JE, Huizing EH. Expression of intermediate filament proteins in the adult human vestibular labyrinth. *Ann Otol Rhinol Laryngol.* 1992 Jun;101(6):479-86. PubMed PMID: 1376975.
7. Van Niekerk CC, Ramaekers FC, Hanselaar AG, Aldeweireldt J, Poels LG. Changes in expression of differentiation markers between normal ovarian cells and derived tumors. *Am J Pathol.* 1993 Jan;142(1):157-77. PubMed PMID: 7678716.
8. van Dorst EB, van Muijen GN, Litvinov SV, Fleuren GJ. The limited difference between keratin patterns of squamous cell carcinomas and adenocarcinomas is explicable by both cell lineage and state of differentiation of tumour cells. *J Clin Pathol.* 1998 Sep;51(9):679-84. PubMed PMID: 9930073.
9. Tabuchi Y, Wada S, Ikegame M, Kariya A, Furusawa Y, Hoshi N, et al. Development of oral epithelial cell line ROE2 with differentiation potential from transgenic rats harboring temperature-sensitive simian virus40 large T-antigen gene. *Exp Anim.* 2014;63(1):31-44. PubMed PMID: 24521861.

**Pictures:**

Immunofluorescence staining of a 7 days old zebrafish embryo.

