

DESCRIPTION

Species Reactivity	Human
Specificity	Detects a synthetic peptide specific for human Cytokeratin 7 around amino acid 300 in Direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1090519
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic Peptide
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

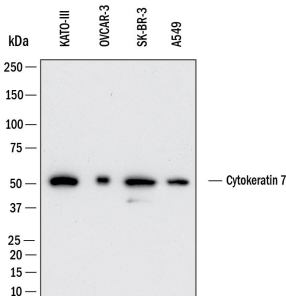
APPLICATIONS

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
Western Blot	0.5 µg/mL	KATO-III human gastric carcinoma cell line, OVCAR-3 human ovarian carcinoma cell line, SK-BR-3 human breast cancer cell line and A549 human lung carcinoma cell line
Immunocytochemistry	3-25 µg/mL	Immersion fixed SK-BR-3 human breast cancer cell line
Immunohistochemistry	3-25 µg/mL	Immersion fixed paraffin-embedded sections of human lung cancer and human placenta

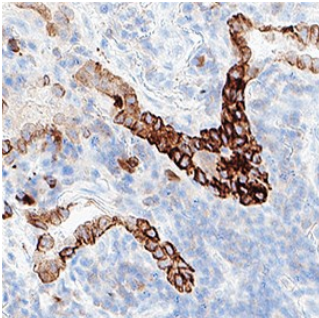
DATA

Western Blot



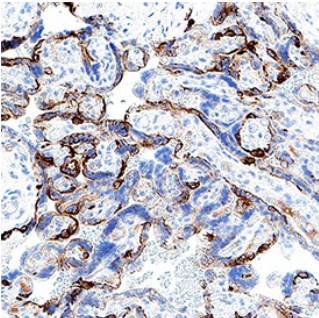
Detection of Human Cytokeratin 7 by Western Blot. Western Blot shows lysates of KATO-III human gastric carcinoma cell line, OVCAR-3 human ovarian carcinoma cell line, SK-BR-3 human breast cancer cell line and A549 human lung carcinoma cell line. PVDF membrane was probed with 0.5 µg/ml of Mouse Anti-Human Cytokeratin 7 Monoclonal Antibody (Catalog # MAB11626) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Cytokeratin 7 at approximately 52 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

Immunohistochemistry



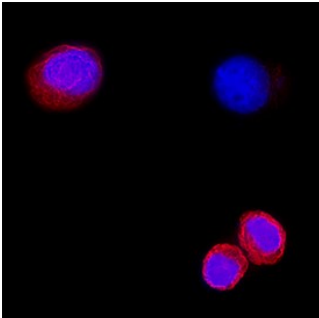
Detection of Cytokeratin 7 in Human Lung Cancer. Cytokeratin 7 was detected in immersion fixed paraffin-embedded sections of human lung cancer using Mouse Anti-Human Cytokeratin 7 Monoclonal Antibody (Catalog # MAB11626) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Immunohistochemistry



Detection of Cytokeratin 7 in Human Placenta. Cytokeratin 7 was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human Cytokeratin 7 Monoclonal Antibody (Catalog # MAB11626) at 5 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cytoplasm. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

Immunocytochemistry



Detection of Cytokeratin 7 in SK-BR-3 Human Cell Line. Cytokeratin 7 was detected in immersion fixed SK-BR-3 human breast cancer cell line using Mouse Anti-Human Cytokeratin 7 Monoclonal Antibody (Catalog # MAB11626) at 8 µg/ml for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to the cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cytokeratin-7 is a 51 kDa type II keratin and a member of the keratin gene family. Cytokeratin-7 is specifically expressed in the simple epithelia lining the cavities of the internal organs and in the gland ducts and blood vesicles. It is found in simple glandular epithelia and in transitional epithelium. Combined with cytokeratin-20, cytokeratin-7 is often used for assessing the origin of metastatic cancer.

References:

1. Schweizer J, Bowden PE, Coulombe PA, Langbein L, Lane EB, Magin TM, Maltais L, Omary MB, Parry DA, Rogers MA, Wright MW. New consensus nomenclature for mammalian keratins. *J Cell Biol.* 2006 Jul 17;174(2):169-74. doi: 10.1083/jcb.200603161. Epub 2006 Jul 10. PMID: 16831889; PMCID: PMC2064177.
2. Dum D, Menz A, Völkel C, De Wispelaere N, Hinsch A, Gorbokov N, Lennartz M, Luebke AM, Hube-Magg C, Kluth M, Fraune C, Möller K, Bernreuther C, Lebok P, Clauditz TS, Jacobsen F, Sauter G, Uhlig R, Wilczak W, Steurer S, Minner S, Marx AH, Simon R, Burandt E, Krech T. Cytokeratin 7 and cytokeratin 20 expression in cancer: A tissue microarray study on 15,424 cancers. *Exp Mol Pathol.* 2022 Jun;126:104762. doi: 10.1016/j.yexmp.2022.104762. Epub 2022 Apr 4. PMID: 35390310.