Product datasheet

anti-Keratin K5/K8 (Pan Epithelial) mouse monoclonal, C22, lyophilized, purified

Short overview

Cat. No.	61031
Quantity	50 µg
Concentration	50 µg/ml after reconstitution with 1 ml dist. water

Product description

Host	Mouse
Antibody Type	Monoclonal
Isotype	IgG1
Clone	Ks 5+8.22/C22
Immunogen	Human keratin K8, purified from SDS PAGE gel
Formulation	Lyophilized; reconstitute in 1 ml dist. water (final solution contains 0.09% sodium azide, 0.5% BSA in PBS buffer, pH 7.4)
UniprotID	Q5XQN5 (Bovine), Q7RTS7 (Human), Q922U2 (Mouse), P05786 (Bovine), P05787 (Human), P11679 (Mouse)
Synomym	Keratin, type II cytoskeletal 74, Cytokeratin-74, CK-74, Keratin-5c, K5C, Keratin-74, K74, Type II inner root sheath-specific keratin-K6irs4, Type-II keratin Kb37, KRT74, K6IRS4, KB37, KRT5C, KRT6IRS4, Keratin, type II cytoskeletal 8, Cytokeratin-8, CK-8, Keratin-8, K8, Type-II keratin Kb8, KRT8, CYK8
Conjugate	Unconjugated
Purification	Affinity chromatography
Storage before reconstitution	2-8°C until indicated expiry date
Storage after reconstitution	Up to 3 months at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles
Intended use	Research use only
Application	ICC/IF, IHC, WB
Reactivity	Bovine, Human, Mouse, Rat

Applications

Immunocytochemistry (ICC)	Assay dependent
Immunohistochemistry (IHC) - frozen	1:10-1:100 (0.5-5 µg/ml)
Immunohistochemistry (IHC) - paraffin	1:10-1:100 (0.5-5 µg/ml, protease treatment and/or microwave treatment recommended)
Western Blot (WB)	1:500 (0.1 µg/ml)

Background

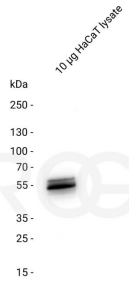
C22 represents an excellent marker for distinguishing carcinomas from all non-epithelial tumors. The antibody specifically reacts with keratins K5 and K8 present in nearly all epithelia.

Polypeptide reacting: Mr 52,500, Mr 58,000 keratins (type II keratins K5 and K8; formerly also designated cytokeratins 5 and 8) of human epithelial cells. Epitope has been mapped to aa 353-367 on alpha helical rod domain of Keratin K8 (Waseem et al., 2004).

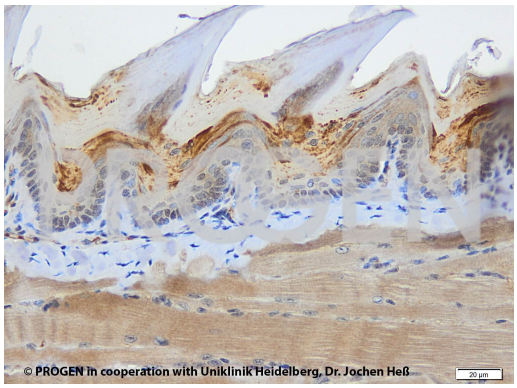
Reactivity on cultured cell lines: MCF-7, RT 112, HT-29, HaCaT, Detroit 562, RPMI 2650, SSC-12, bovine BMGE+H, BMGE-H, MDBK.

Waseem A, Karsten U, Leigh IM, Purkis P, Waseem NH, Lane BE: Conformational changes in the rod domain of human keratin 8 following heterotypic association with keratin 18 and its implication for filament stability. Biochemistry 43, 1283-1295 (2004).

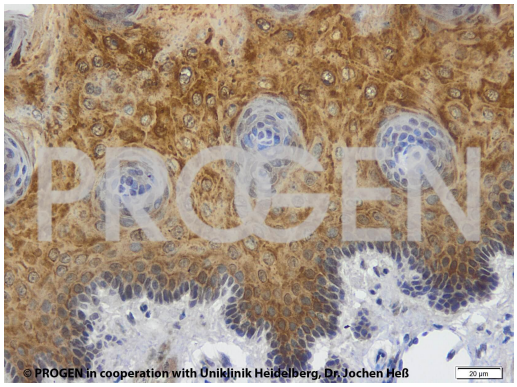
Product images



Western blot analysis of human HaCaT lysate with anti-Keratin K5/K8 antibody. Western blot analysis was performed on 10 µg HuCaT lysate. Cells were lysed with RIPA buffer. The PVDF membrane was blocked with 5% dry milk in PBST (PBS + 0.1% Tween 20) for 1 h at RT. The primary antibody anti-Keratin K5/K8 mouse monoclonal, C22 (Cat. No. 690031) was diluted in blocking buffer (antibody concentration 0.1 µg/ml) and incubated for 1 h at RT. The secondary antibody anti-mouse IgG goat polyclonal, HRP conjugate was also diluted in blocking buffer (antibody concentration 0.2 µg/ml) and incubated for 1 h at RT. The bands were visualized by chemiluminescent detection using PierceTM ECL Western Blotting Substrate.



IHC of mouse tongue (courtesy of J.Heß, University Hospital Heidelberg)



IHC of rat tongue (courtesy of J.Heß, University Hospital Heidelberg)

References

Publication	Species	Application
Heid, H. et al. Lipid droplets, perilipins and cytokeratins--unravelled liaisons in epithelium-derived cells. PLoS One 8, (2013).	human	ICC-IF
Frese, L. et al. Optimizing large-scale autologous human keratinocyte sheets for major burnsâ€"Toward an animal-free production and a more accessible clinical application. Heal. Sci. Reports 5, 1â€“11 (2022).	Human	IHC-P-IF
Obermayr, E. et al. Circulating tumor cells: potential markers of minimal residual disease in ovarian cancer? a study of the OVCAD consortium. Oncotarget. 8, 106415-106428 (2017).	human	ICC-IF