Acris Antibodies GmbH

Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info@acris-antibodies.com

US office:
Acris Antibodies, Inc.
San Diego, CA
UNITED STATES
Phone: +1-858-888-7900
Fax: +1-858-888-7904
US-info@acris-antibodies.com

Monoclonal Antibody to Cytokeratin 5+8 (Pan Epithelial Keratin) -FITC

Alternate names: 58 kDa Cytokeratin, CK5, Cytokeratin-5, K5, KRT5, Keratin 5, Keratin type II cytoskeletal 5, Keratin-5

Catalog No.: BM5042F

Quantity: 0.25 ml

Background: **Cytokeratin 5** is a member of the keratin gene family. The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in the basal layer of the epidermis with family member KRT14. Mutations in these genes have been associated with a complex of diseases termed epidermolysis bullosa simplex. The type II cytokeratins are clustered in a region of chromosome 12q12-q13.
Cytokeratin 8 is a member of the type II keratin family clustered on the long arm of chromosome 12. Type I and type II keratins heteropolymerize to form intermediate-sized filaments in the cytoplasm of epithelial cells. The product of this gene typically dimerizes with keratin 18 to form an intermediate filament in simple single-layered epithelial cells. This protein plays a role in maintaining cellular structural integrity and also functions in signal transduction and cellular differentiation. Mutations in this gene cause cryptogenic cirrhosis.

Uniprot ID: P13647

NCBI: NP_000415

GeneID: 3852

Host / Isotype: Mouse / IgG1

Clone: C22

Immunogen: Human Keratin K8, purified from SDS PAGE gel

Format:
State: Liquid purified IgG fraction
Purification: Affinity Chromatography on Protein A.
Preservatives: 0.09% Sodium Azide
Label: FITC

Applications:
Flow Cytometry.
Immunocytology.
Immunohistochemistry on Frozen Tissues (1/10).
Immunohistochemistry on Paraffin-Embedded Tissues (1/10).
Incubation Time: 1 h at RT, extended with paraffin sections (overnight at 2-8°C).
Pretreatment: With paraffin-embedded sections, protease pretreatment is required prior to antibody application.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: 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 (see Waseem et al., 2004).
Reactivities on Cultured Cell Lines (tested so far): MCF-7, RT 112, HT-29, Detroit 562, RPMI 2650, SSC-12, bovine BMGE+H, BMGE-H, MDBK.
Species: Human, Bovine, Mouse, Amphibia, Pig and Hydra.
Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General References:
1. Bartek J, Vojtesek B, Staskova Z, Bartkova J, Kerekes Z, Rejthar A, Kovarik J: A series of 14 new monoclonal antibodies to keratins: Characterization and value in diagnostic histopathology. J Pathol 164: 215-224 (1991)
2. Heid H, Vojtesek B, Bruder G, Kaufman M, Staskova Z, Kovarik J, Bartek J, Franke WW: Cell type heterogeneity of mammary gland epithelial and breast carcinoma cells as revealed by cytokeratin expression. Differentiation (1991)
3. Moll R, Franke WW, Schiller DL, Geiger B, Krepler R: The catalog of human cytokeratins: Patterns of expression in normal epithelia, tumors and cultured cells. Cell 31, 11-24 (1982)
4. 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)