

Product Specification Sheet

Cytokeratin 8, 18 Antibodies

Cat # CK818-M

Mouse monoclonal Anti-Human **cytokeratin 8, 18** IgG

SIZE: 100 ug

Cytokeratin 8 belongs to the type B (basic) subfamily of high molecular weight keratins and exists in combination with Cytokeratin 18 (type A; acidic subfamily of low molecular weight keratins).

FUNCTION: Involved in the uptake of thrombin-antithrombin complexes by hepatic cells (By similarity). When phosphorylated, plays a role in filament reorganization. Involved in the delivery of mutated CFTR to the plasma membrane. Together with KRT8, is involved in interleukin-6 (IL-6)-mediated barrier protection.

SUBUNIT: Heterotetramer of two type I and two type II keratins. Keratin-18 associates with keratin-8. Interacts with the thrombin-antithrombin complex (By similarity). Interacts with PNN, HCV core protein and mutated CFTR. Interacts with YWHAE, YWHAH and YWHAZ only when phosphorylated. Interacts with DNAJB6, TCHP and TRADD.

SUBCELLULAR LOCATION: Cytoplasm, perinuclear region.
TISSUE SPECIFICITY: Expressed in colon, placenta, liver and very weakly in exocervix. Increased expression observed in lymph nodes of breast carcinoma.

INDUCTION: By IL-6.

PTM: Phosphorylation at Ser-34 increases during mitosis. Hyperphosphorylated at Ser-53 in diseased cirrhosis liver. Phosphorylation increases by IL-6.

PTM: Proteolytically cleaved by caspases during epithelial cell apoptosis. Cleavage occurs at Asp-238 by either caspase-3, caspase-6 or caspase-7.

DISEASE: Defects in KRT18 are a cause of cryptogenic cirrhosis [MIM:215600].

MISCELLANEOUS: There are two types of cytoskeletal and microfibrillar keratin: I (acidic; 40-55 kDa) and II (neutral to basic; 56-70 kDa).

SIMILARITY: Belongs to the intermediate filament family.

Protein name Keratin, type I cytoskeletal 18

Synonyms Cytokeratin-18; CK-18; Keratin-18; K18

Cell proliferation-inducing gene 46 protein

Gene name Name: KRT18

Synonyms: CYK18

ORFNames: PIG46

Source of Antigen, & Antibodies

Antigen	Native HeLa cells
Ab Host/type	Mouse, monoclonal IgG1
Ab Format	Purified IgG (cat #CK818-M) supplied in PBS, pH 7.4 at 1 mg/ml (see lot sp conc on the vial)
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage

Affinity pure IgG

100 ug/100ul solution lyophilized powder
supplied in Buffer: PBS, pH 7.2,

Reconstitute powder in PBS at 1 mg/ml

Storage

Short-term: unopened, undiluted vials for less than a week at 40C.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-2 ug/ml). Recognizes the ~52 kDa keratin 8 and 45 kDa keratin 18..

ELISA (1:10-50K; using 50-100 ng control peptide/well).

Histochemistry & Immunofluorescence: IHC-P: Use at an assay dependent dilution. Immunohistology Formalin fixed paraffin embedded material is suitable with microwave (or equivalent) treatment. Preferred fixation is with methanol/acetone for culture cells or Methcarn for tissue sections

Specificity & Cross-reactivity

Antibody reacts with human. Other species not tested.

General References: Yamamoto R (1990) Mol Endocrinol. 4, 370-374; Luebe RE (1986) Differentiaton 33, 69-85; Ku NO (2002) JBC 277, 10775-10782; Oshima RG (1986) Differentiaton 33, 61-68; Ku NO (2002) JBC 270, 11820-11827

*This product is for In vitro research use only.

Related material available from ADI

Antibodies to AR, ER alpha, beta, PR are available.

Western blot Recycling kit (probe same blot with multiple antibodies)

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

CK818-M

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