**BACKGROUND**

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and maintain the overall structural integrity of epithelial cells. Cytokeratins are useful markers of tissue differentiation which is directly applicable to the characterization of malignant tumors. Cytokeratin polypeptides are designated one to 20 and Cytokeratin 1 has the highest molecular weight, while Cytokeratin 19 has the lowest molecular weight. The Cytokeratins are divided into the type I and type II subgroups. The type II family members comprise the basic to neutral Cytokeratins 1-8, while the type I group comprises the acidic Cytokeratins 9-20.

**CHROMOSOMAL LOCATION**

Genetic locus: KRT1 (human) mapping to 12q13.13, KRT10 (human) mapping to 17q21.2; Krt1 (mouse) mapping to 15 F3, Krt10 (mouse) mapping to 11 D.

**SOURCE**

Cytokeratin 1/10 (LH1) is a mouse monoclonal antibody raised against full length proteins Cytokeratin 1 and 10 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cytokeratin 1/10 (LH1) is available conjugated to agarose (sc-53251 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53251 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53251 PE), fluorescein (sc-53251 FITC), Alexa Fluor® 488 (sc-53251 AF488), Alexa Fluor® 546 (sc-53251 AF546), Alexa Fluor® 594 (sc-53251 AF594) or Alexa Fluor® 647 (sc-53251 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53251 AF680) or Alexa Fluor® 790 (sc-53251 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Cytokeratin 1/10 (LH1) is recommended for detection of Cytokeratin 1 and Cytokeratin 10 of mouse, rat, human and porcine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:300-1:3000).

Molecular Weight of Cytokeratin 1: 67 kDa.

Molecular Weight of Cytokeratin 10: 57 kDa

Positive Controls: Caco-2 cell lysate: sc-2262.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.