

BM5046**Monoclonal Antibody to Cytokeratin 9 - Supernatant****Alternate names:**CK9, Cytokeratin 9, K9, KRT9, Keratin, Keratin-9, Spermatid Perinuclear Ring
Manchette Protein K9, Type I cytoskeletal 9**Quantity:**

1 ml

Background:

Keratin 9 is a type I cytokeratin. It is expressed in the terminally differentiated epidermis of palms and soles. Defects in KRT9 are a cause of epidermolytic palmoplantar keratoderma (EPPK). EPPK is an autosomal dominant disease characterized by diffuse thickening of the epidermis on the entire surface of palms and soles sharply bordered with erythematous margins.

Uniprot ID:[P35527](#)**NCBI:**[NP_000217.2](#)**GenelD:**[3857](#)**Host / Isotype:**

Mouse / cocktail

Clone:

Ks9.70 / Ks9.216

Immunogen:

Synthetic peptides [amino acids pos. 450-477 / N-terminal amino acids nos. 4-28] of Human Cytokeratin 9 (MW 62,129).

Format:**State:** Liquid Hybridoma Culture Supernatant
Preservatives: 0.09% Sodium Azide**Applications:****Immunohistochemistry on Frozen and Paraffin Embedded tissues:** 1/20 (PAP/ABC).
For Paraffin sections, *microwave* treatment and in some cases protease digestion is recommended.**Immunofluorescence:** 1/10.**Western blotting:** 1/25-1/300 (Chemiluminescence (AP/ECL)).

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

Specificity:

The antibody cocktail is an excellent tool to characterize primary cultures of keratinocytes/skin transplants for application in burn treatment.

The antibody reagent represents an excellent marker to study palmoplantar epidermal distribution and differentiation. Specifically reactive in the middle/upper suprabasal layers (stratum spinosum/ granulosum) of the epidermis of palm and sole. CK9 can be detected in primary cultures of palmoplantar keratinocytes when they shift to differentiation-promoting conditions and grow stratified (upper cells). CK9 has not been found in normal, i.e. non-pathogenic, non-ridged epidermis, beside some minor cells surrounding the acrosyringeal ducts. No labelling has been found in epithelial cells of other stratified epithelia such as oesophagus or complex epithelia (e.g. urothelium) or in ductal or simple epithelia.

Negative tissues include: Muscle, liver and duodenum.**Species:** Human (in Mouse: some background staining).

Other species not tested.

Add. Information:**Isotypes:** IgG1 for Ks9.70 and IgG3 for Ks9.216

Storage:

Store undiluted at 2-8°C.

DO NOT FREEZE!

Shelf life: one year from despatch.

General Readings:

1. Langbein L et al. Molecular characterization of the body site-specific human cytokeratin 9: cDNA cloning, amino acid sequence, and tissue specificity of gene expression. *Differentiation* 55:57-71 (1994).
2. Swensson O, Langbein L, McMillan JR, Stevens HP, Leigh IM, McLean WH, et al. Specialized keratin expression pattern in human ridged skin as an adaptation to high physical stress. *Br J Dermatol.* 1998 Nov;139(5):767-75. PubMed PMID: 9892940.
3. Mochida K, Rivkin E, Gil M, Kierszenbaum AL. Keratin 9 is a component of the perinuclear ring of the manchette of rat spermatids. *Dev Biol.* 2000 Nov 15;227(2):510-9. PubMed PMID: 11071770.