

AR09365PU-N

Human Cytokeratin 20 - Purified

Alternate names:	CK20, Cytokeratin 20, K20, KRT20, Keratin type I cytoskeletal 20, Keratin-20, Protein IT
Quantity:	0.25 mg
Concentration:	1,0 mg/ml
Background:	Cytokeratin 20 is a type I keratin which is primarily expressed in gastric and intestinal epithelium, urothelium, and Merkel-cells. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. The type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains. Their genes are clustered in a region of chromosome 17q12-q21. Cytokeratin 20 is a major cellular protein of mature enterocytes and goblet cells and is specifically expressed in the gastric and intestinal mucosa. It is also expressed in adenocarcinomas of the colon, stomach, pancreas and the bile system and is present in mucinous ovarian tumors, transitional-cell and Merkel-cell carcinomas. Notably, the squamous cell carcinomas and adenocarcinomas of the breast, lung, and endometrium, non-mucinous tumors of the ovary, and small cell carcinomas lack cytokeratin 20.
Uniprot ID:	P35900
NCBI:	NP_061883
GeneID:	54474
Species:	Human
Source:	E. coli
Format:	State: Lyophilised purified protein Purity: >95% determined by SDS gelelectrophoresis Buffer System: 30 mM Tris/HCl pH 8, 9.5 M urea, 2 mM DTT, 2 mM EDTA, 10 mM methylammonium chloride Reconstitution: Reconstitute with 175 µl distilled water (final volume 250 µl) Reconstitute with 70 µl distilled water (final volume 100 µl)
Applications:	Protein standard in 1D and 2D SDS gelelectrophoresis. Immunoassays. Immunization. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Description:	Recombinant human keratin K20 (formerly also designated cytokeratin 20). Molecular weight: 46 kDa
Add. Information:	<u>Isoelectric Point</u> pI 5.66
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store the antibody at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings:

1. Moll et al (1990). J Cell Biol 111, 576-580
2. Moll et al (1993). Differentiation 53, 75-93
3. Hofmann I, Franke WW. Heterotypic interactions and filament assembly of type I and type II cytokeratins in vitro: viscometry and determinations of relative affinities. Eur J Cell Biol. 1997 Feb;72(2):122-32. PubMed PMID: 9157008.

Protocols:

Reconstitution to filaments is performed by mixing equimolar amounts of keratins of type I and type II at concentrations of approx. 0.5 mg/ml, both dissolved in 9.5 M urea buffer (see above). Protofilaments and filament complexes are obtained by dialyzing the resulting polypeptide solution stepwise to a concentration of 4 M urea and then to low salt condition (50 mM NaCl, 2 mM dithiothreitol, 10 mM Tris-HCl, pH 7.4). For immunization purposes, the solution can be further dialyzed against PBS (phosphate buffered saline, e.g. Dulbecco's PBS).