

## Human NMP22 Antibody Pair Set

<b>Catalog No.</b>	E-KAB-0153	<b>Applications</b>	ELISA
<b>Synonyms</b>	NMP22; NUMA; Nuclear matrix protein-22; SP-H antigen		

### Kit components & Storage

Title	Specifications	Storage
Human NMP22 Capture Antibody	1 vial, 100 µg	Store at -20℃ for one year. Avoid freeze / thaw cycles.
Human NMP22 Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20℃ for one year. Avoid freeze / thaw cycles.

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

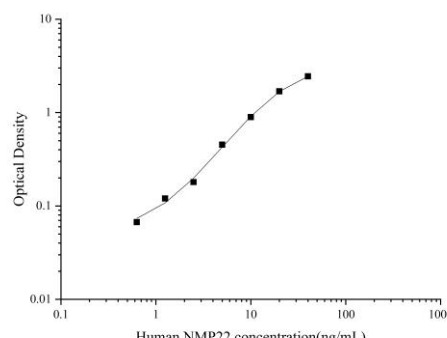
### Product Information

Items		Characteristic (E-KAB-0153)	
		Human NMP22 Capture Antibody	Human NMP22 Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Human NMP22 protein	Recombinant Human NMP22 protein
	Swissprot	Q14980	
Product details	Reactivity	Human	Human
	Host	Mouse	Mouse
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Protein A	Protein A
	Specificity	Detects Human NMP22 in ELISAs.	

### For Research Use Only

## Applications

### Human NMP22 Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																		
ELISA Capture	0.5-4μg/mL	Human NMP22 Capture Antibody	 <table><caption>Approximate data points from the standard curve</caption><thead><tr><th>Human NMP22 concentration (ng/mL)</th><th>Optical Density</th></tr></thead><tbody><tr><td>0.5</td><td>0.05</td></tr><tr><td>1</td><td>0.1</td></tr><tr><td>2</td><td>0.2</td></tr><tr><td>5</td><td>0.5</td></tr><tr><td>10</td><td>1.0</td></tr><tr><td>20</td><td>2.0</td></tr><tr><td>50</td><td>5.0</td></tr><tr><td>100</td><td>10.0</td></tr></tbody></table>	Human NMP22 concentration (ng/mL)	Optical Density	0.5	0.05	1	0.1	2	0.2	5	0.5	10	1.0	20	2.0	50	5.0	100	10.0
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ELISA Detection	1:1000-1:10000	Human NMP22 Detection Antibody (Biotin)																			

**Note:** This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

## Background

Microtubule (MT)-binding protein that plays a role in the formation and maintenance of the spindle poles and the alignment and the segregation of chromosomes during mitotic cell division. Functions to tether the minus ends of MTs at the spindle poles, which is critical for the establishment and maintenance of the spindle poles. Plays a role in the establishment of the mitotic spindle orientation during metaphase and elongation during anaphase in a dynein-dynactin-dependent manner. In metaphase, part of a ternary complex composed of GPSM2 and G(i) alpha proteins, that regulates the recruitment and anchorage of the dynein-dynactin complex in the mitotic cell cortex regions situated above the two spindle poles, and hence regulates the correct orientation of the mitotic spindle. During anaphase, mediates the recruitment and accumulation of the dynein-dynactin complex at the cell membrane of the polar cortical region through direct association with phosphatidylinositol 4,5-bisphosphate (PI(4,5)P2), and hence participates in the regulation of the spindle elongation and chromosome segregation. Binds also to other polyanionic phosphoinositides, such as phosphatidylinositol 3-phosphate (PIP), lysophosphatidic acid (LPA) and phosphatidylinositol triphosphate (PIP3), in vitro. Also required for proper orientation of the mitotic spindle during asymmetric cell divisions. Plays a role in mitotic MT aster assembly. Involved in astral spindle assembly. Positively regulates TNKS protein localization to spindle poles in mitosis. Highly abundant component of the nuclear matrix where it may serve a non-mitotic structural role, occupies the majority of the nuclear volume. Required for epidermal differentiation and hair follicle morphogenesis.

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