Recombinant Nuclear mitotic apparatus protein 1 Antibody

Mouse Monoclonal Antibody [Clone rA73-B/D12]

Catalog No	Format	Size
4926-MSM2-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
4926-MSM2-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
4926-MSM2-P1BX	Purified Ab WITHOUT BSA at 1.0mg/ml	100 ug

Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

Product Details

Clone	rA73-B/D12
Immunogen	Recombinant full-length human NuMA protein protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgM / Kappa
Mol. Weight of Antigen	238.26kDa
Cellular Localization	Cell cortex, Cell membrane, Centrosome, Chromosome, Cytoplasm, Cytoskeleton, Cytosol, Lateral cell membrane, Microtubule organizing center, Nucleoplasm, Nucleus, Nucleus matrix, Spindle pole
Species Reactivity	Human

**Optimal dilution for a specific application should be determined.*

Product Images for Recombinant Nuclear mitotic apparatus protein 1 Antibody

Specificity & Comments

Microtubule (MT)-binding protein that plays a role in the formation and maintenance of the spindle poles and the alignement and the segregation of chromosomes during mitotic cell division (PubMed:17172455, PubMed:19255246, PubMed:24996901, PubMed:26195665, PubMed:27462074, PubMed:7769006). Functions to tether the minus ends of MTs at the spindle poles, which is critical for the establishment and maintenance of the spindle poles (PubMed:11956313, PubMed:12445386). Plays a role in the establishment of the mitotic spindle orientation during metaphase and elongation during anaphase in a dynein-dynactin-dependent manner (PubMed:23870127, PubMed:24109598, PubMed:24996901, PubMed:26765568). 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 oritentation of the mitotic spindle (PubMed:22327364, PubMed:23027904, PubMed:23921553). 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 (PubMed:22327364, PubMed:23921553, PubMed:24371089, PubMed:24996901). Also binds to other polyanionic phosphoinositides, such as phosphatidylinositol 3-phosphate (PIP), lysophosphatidic acid (LPA) and phosphatidylinositol triphosphate (PIP3), in vitro (PubMed:24371089, PubMed:24996901). Also required for proper orientation of the mitotic spindle during asymmetric cell divisions (PubMed:21816348). Plays a role in mitotic MT aster assembly (PubMed:11163243, PubMed:11229403, PubMed:12445386). Involved in anastral spindle assembly (PubMed:25657325). Positively regulates TNKS protein localization to spindle poles in mitosis (PubMed:16076287). Highly abundant component of the nuclear matrix where it may serve a non-mitotic structural role, occupies the majority of the nuclear volume (PubMed:10075938). Required for epidermal differentiation and hair follicle morphogenesis (By similarity).

Supplied As

200ug/ml of Ab produced in a mammalian-based expression system. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Limitations and Warranty