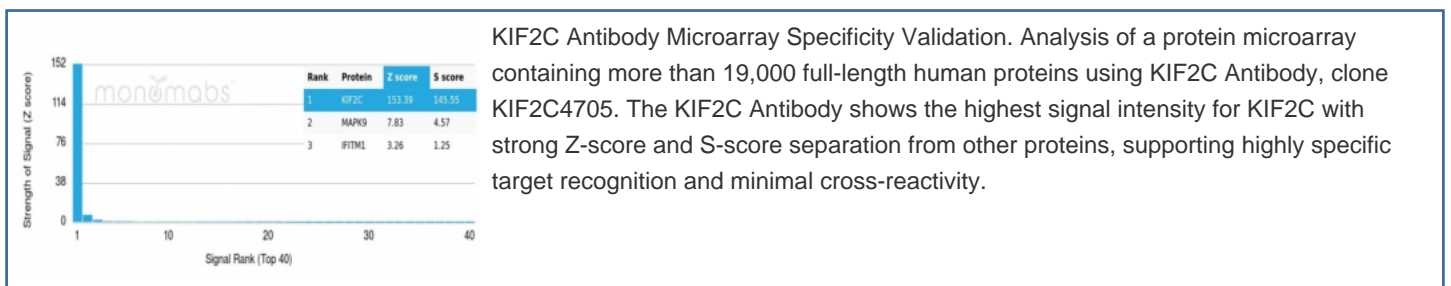


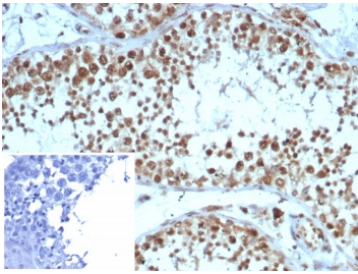
KIF2C Antibody / Microarray Specificity Validated Antibody [clone KIF2C/4705] (V4684)

| Catalog No. | Formulation | Size |
|----------------|---|--------|
| V4684-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V4684-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V4684SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

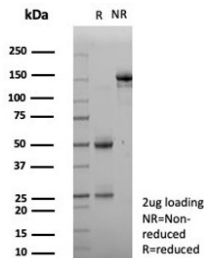
[Bulk quote request](#)

| | |
|---------------------------|---|
| Availability | 1-3 business days |
| Species Reactivity | Human |
| Format | Purified |
| Host | Mouse |
| Clonality | Monoclonal (mouse origin) |
| Isotype | Mouse IgG2, kappa |
| Clone Name | KIF2C/4705 |
| Purity | Protein A/G affinity |
| UniProt | Q99661 |
| Localization | Cytoplasm, Nucleus |
| Applications | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT |
| Limitations | This KIF2C Antibody / Microarray Specificity Validated Antibody is available for research use only. |





KIF2C Antibody Testis IHC. Immunohistochemistry analysis of Kinesin like protein 6 / KIF2C expression in FFPE human testis tissue using KIF2C Antibody, clone KIF2C/4705 at 2 ug/ml. The KIF2C Antibody shows strong nuclear and cytoplasmic HRP-DAB brown staining in spermatogenic cells within seminiferous tubules, while surrounding interstitial tissue displays reduced signal; nuclei are counterstained blue. Inset: PBS used in place of primary antibody to control for secondary antibody binding. This Microarray Specificity Validated Antibody supports highly specific detection of KIF2C in proliferative germ cell populations. Antigen retrieval was performed by boiling tissue sections in 10 mM Tris buffer with 1 mM EDTA, pH 9, for 20 min followed by cooling at room temperature.



SDS-PAGE analysis of purified, BSA-free KIF2C antibody (clone KIF2C/4705) as confirmation of integrity and purity.

Description

Kinesin like protein 6 (KIF2C) is a microtubule-associated motor protein that plays a central role in mitotic spindle dynamics and accurate chromosome segregation during cell division. KIF2C Antibody / Microarray Specificity Validated Antibody, clone KIF2C4705, is a mouse monoclonal antibody designed for high-confidence detection of KIF2C, supported by protein microarray data demonstrating selective target recognition. Kinesin like protein 6 (KIF2C) is also widely referred to as mitotic centromere associated kinesin (MCAK) in the literature, reflecting its localization to centromeres and kinetochores during mitosis and its critical role in regulating microtubule turnover during cell division.

KIF2C antibody, also referred to as kinesin like protein 6 antibody or MCAK antibody, recognizes a member of the kinesin-13 family of microtubule depolymerizing enzymes that regulate microtubule dynamics rather than directional transport. KIF2C localizes dynamically to centrosomes, kinetochores, and spindle microtubules, where it promotes microtubule depolymerization and ensures proper chromosome congression and segregation. Its activity is tightly controlled through phosphorylation and cell cycle-dependent regulatory mechanisms, with peak expression and activity during mitosis. This tightly regulated localization and function make KIF2C a key determinant of spindle integrity, checkpoint signaling, and genomic stability in proliferating cells.

This Microarray Specificity Validated Antibody is supported by protein microarray analysis demonstrating strong and selective binding to KIF2C across a panel of more than 19,000 full-length human proteins. The antibody exhibits a high Z-score for KIF2C with clear separation from the next highest-ranking proteins, indicating minimal cross-reactivity and highly specific target recognition. This level of specificity is particularly important for proteins such as KIF2C that belong to conserved kinesin families, where sequence similarity can increase the risk of off-target binding. The strong signal separation observed for clone KIF2C4705 supports accurate detection of KIF2C in complex lysate and cellular systems.

Microarray-based specificity validation provides a comprehensive assessment of antibody selectivity by evaluating binding across thousands of potential off-target proteins in a single experiment. This approach offers an independent and high-resolution measure of specificity that complements traditional application data. For KIF2C studies, where precise detection is required to distinguish mitotic regulation from related cytoskeletal processes, this level of validation supports confident interpretation of experimental results and reduces the likelihood of misleading cross-reactivity.

KIF2C plays an essential role in maintaining genomic stability, and dysregulation of its expression or activity has been associated with chromosomal instability and tumor progression in multiple cancers. Elevated KIF2C expression is frequently observed in highly proliferative tissues and malignancies, reflecting its involvement in mitotic control and spindle checkpoint regulation. In addition to its role in chromosome segregation, KIF2C interacts with multiple regulatory

proteins involved in microtubule dynamics and mitotic signaling pathways, further underscoring its importance in cell division.

Given its central role in mitosis and the importance of accurate target detection, clone KIF2C4705 represents a highly specific reagent for KIF2C analysis. A KIF2C antibody can be used to evaluate protein expression and localization in experimental systems where specificity and confidence in target recognition are essential, supporting studies of mitotic progression, microtubule regulation, and disease-related alterations in proliferating cells.

This antibody is part of a [broader antibody panel](#) offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the KIF2C Antibody / Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 500-700) from the human protein was used as the immunogen for the KIF2C antibody.

Storage

Aliquot the KIF2C antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Kinesin like protein 6 antibody, Mitotic centromere associated kinesin antibody, MCAK antibody, KIF2C microarray validated antibody, KIF2C protein antibody