

Technical Data Sheet

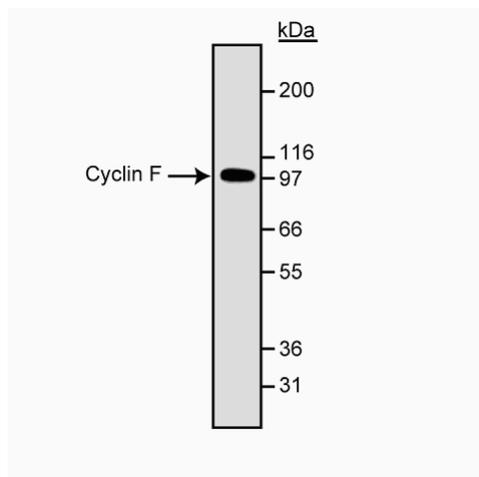
Purified Mouse Anti-Human Cyclin F

Product Information

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|-------------------------|--|
| Material Number: | 556598 |
| Size: | 0.1 mg |
| Concentration: | 0.5 mg/ml |
| Clone: | B74-2 |
| Immunogen: | Human Cyclin F aa. 693-776 |
| Isotype: | Mouse IgG1, κ |
| Reactivity: | QC Testing: Human |
| Target MW: | 100-110 kDa |
| Storage Buffer: | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

Description

Cyclins and cyclin-dependent kinases (cdks) are evolutionarily conserved proteins that are essential for cell-cycle control in eukaryotes. Cyclins contain a conserved amino acid sequence motif, the cyclin box, which allows their binding to cdks to form active complexes that regulate the progression of the cell cycle. Most cyclins also contain a so-called “destruction box” motif, which targets cyclins for rapid, ubiquitin-mediated degradation, as well as PEST sequences, which are thought to result in protein instability. Certain cyclins may have additional functions not restricted to cell cycle regulation. Thus, cyclins have been placed into functional groups as follows: Group 1 (cyclins A, B, D1, D2, D3, E and F) functions primarily in cell cycle regulation; Group 2 (cyclins C and H) may also play a role in transcriptional regulation; Group 3 (cyclins G1, G2 and I) may play a role distinct from either cell cycle or transcriptional regulation. Cyclin F is a novel cyclin which is structurally most similar to cyclin A, yet cyclin F lacks the destruction box sequence. Cyclin F is the largest of the cyclins, with a predicted M.W. of 87 kD and an observed M.W. of 100-110 kD, which is thought to reflect posttranslational modification of the protein. Like cyclin A, expression of cyclin F is low or undetectable in G₀, begins to accumulate in Sphase, peaks in G₂ and decreases at M-phase. Overexpression of cyclin F results in an accumulation of cells in G₂, suggesting that this cyclin plays a role in G₂/M transition during the cell cycle. B74-2 reacts with human cyclin F. A polypeptide fragment containing amino acids 693-776 of immunogen.



Western blot analysis of cyclin F. Lysate from A-431 epidermoid carcinoma cells were probed with anti-human cyclin F. Cyclin F is identified as a ~ 100 kD band.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C.

Application Notes

Application

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| Western blot | Routinely Tested |
|--------------|------------------|

Recommended Assay Procedure:

Clone B74-2 may be used for western blot analysis (4 μ g/ml). A-431 human epidermoid carcinoma cells (ATCC CRL- 1555) are suggested as a positive control for this application.

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Suggested Companion Products

| <u>Catalog Number</u> | <u>Name</u> | <u>Size</u> | <u>Clone</u> |
|-----------------------|------------------------|-------------|--------------|
| 554002 | HRP Goat Anti-Mouse Ig | 1.0 ml | (none) |
| 611447 | A431 Cell Lysate | 500 µg | (none) |

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Sherr CJ. Mammalian G1 cyclins. *Cell.* 1993; 73(6):1059-1065.(Biology)