

## Technical Data Sheet

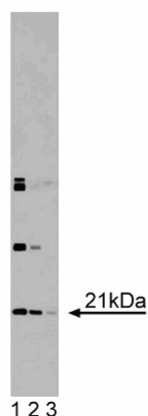
## Purified Mouse Anti-DHFR

## Product Information

|                         |  |
|-------------------------|--|
| <b>Material Number:</b> | <b>610697</b>  |
| <b>Size:</b>            | 150 µg   |
| <b>Concentration:</b>   | 250 µg/ml  |
| <b>Clone:</b>           | 49/DHFR  |
| <b>Immunogen:</b>       | Cow DHFR aa. 1-186   |
| <b>Isotype:</b>         | Mouse IgG1   |
| <b>Reactivity:</b>      | QC Testing: Mouse<br>Tested in Development: Human, Dog, Rat                  |
| <b>Target MW:</b>       | 21 kDa   |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

Dihydrofolate reductase (DHFR) regenerates tetrahydrofolate from dihydrofolate in the presence of NADPH. Tetrahydrofolate is the coenzyme for thymidilate synthetase in the biosynthesis of thymidine and is also critical for the synthesis of amino acids and purines. DHFR is a protein of 186 amino acids that is highly conserved among different organisms. DHFR levels change during the cell cycle, with the highest content during the G1/S transition. Expression of DHFR tightly correlates with the turnover rate of its mRNA. Because dividing cells require a continuous supply of thymidine, DHFR has been a target for anticancer drugs. The folic acid antagonists aminopterin and amethopterin (methotrexate), widely used in cancer treatments, inhibit DHFR. However, over long treatments, treated cells often amplify the DHFR gene, producing drug-resistant cells.



Western blot analysis of DHFR on RSV-3T3 lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of DHFR.

## Preparation and Storage

Store undiluted at -20°C.

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

## Application Notes

## Application

|                      |                  |
|----------------------|------------------|
| Western blot         | Routinely Tested |
| Immunoprecipitation  | Not Recommended  |
| Immunofluorescence   | Not Recommended  |
| Immunohistochemistry | Not Recommended  |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

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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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

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- Israel DI, Kaufman RJ. Dexamethasone negatively regulates the activity of a chimeric dihydrofolate reductase/glucocorticoid receptor protein. *Proc Natl Acad Sci U S A.* 1993; 90(9):4290-4294.(Biology)
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