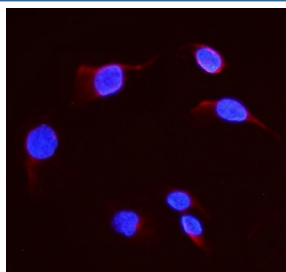


## DHFR Antibody / Dihydrofolate reductase (R31590)

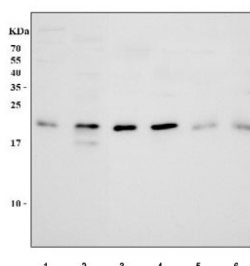
| Catalog No. | Formulation                                           | Size   |
|-------------|-------------------------------------------------------|--------|
| R31590      | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

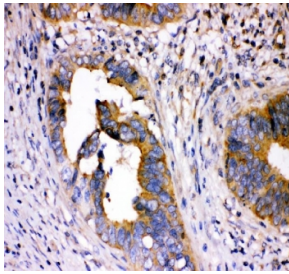
|                           |                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Availability</b>       | 1-3 business days                                                                                                                          |
| <b>Species Reactivity</b> | Human, Mouse, Rat                                                                                                                          |
| <b>Format</b>             | Antigen affinity purified                                                                                                                  |
| <b>Clonality</b>          | Polyclonal (rabbit origin)                                                                                                                 |
| <b>Isotype</b>            | Rabbit IgG                                                                                                                                 |
| <b>Purity</b>             | Antigen affinity                                                                                                                           |
| <b>Buffer</b>             | Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide                                                                          |
| <b>UniProt</b>            | P00374                                                                                                                                     |
| <b>Applications</b>       | Western Blot : 0.5-1ug/ml<br>Immunohistochemistry (FFPE) : 2-5ug/ml<br>Immunofluorescence : 5ug/ml<br>Flow Cytometry : 1-3ug/million cells |
| <b>Limitations</b>        | This DHFR antibody is available for research use only.                                                                                     |



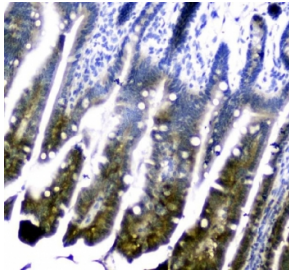
Immunofluorescent staining of FFPE human U-2 OS cells with DHFR antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.



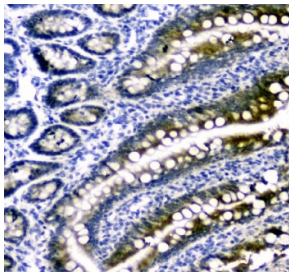
Western blot testing of 1) human HeLa, 2) human Jurkat, 3) rat liver, 4) rat kidney, 5) mouse liver and 6) mouse kidney tissue lysate with DHFR antibody. Predicted molecular weight: 16/21 kDa (two isoforms).



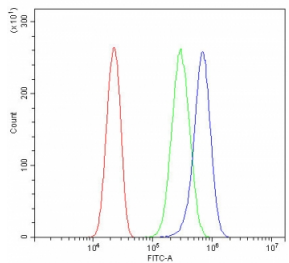
IHC staining of FFPE human colorectal cancer tissue with DHFR antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE mouse small intestine tissue with DHFR antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE rat small intestine tissue with DHFR antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Flow cytometry testing of fixed and permeabilized human PC-3 cells with DHFR antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= DHFR antibody.

## Description

Dihydrofolate reductase, or DHFR, is an enzyme that reduces dihydrofolic acid to tetrahydrofolic acid using NADPH as electron donor, which can be converted to the kinds of tetrahydrofolate cofactors used in 1-carbon transfer chemistry. DHFR belongs to the dihydrofolate reductase family, and it converts dihydrofolate into tetrahydrofolate, a methyl group shuttle required for the de novo synthesis of purines, thymidylic acid, and certain amino acids. It is the key enzyme in folate metabolism. In addition, DHFR catalyzes an essential reaction for de novo glycine and purine synthesis, and for DNA precursor synthesis.

## Application Notes

The stated application concentrations are suggested starting amounts. Titration of the DHFR antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

Human partial recombinant protein (AA 2-187) was used as the immunogen for this DHFR antibody.

## Storage

After reconstitution, the DHFR antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.