Datasheet for ABIN968119

anti-Dihydrofolate Reductase antibody (AA 1-186)

3 Images | 5 Publications

Go to Product page

Overview

Quantity:	150 µg
Target:	Dihydrofolate Reductase (DHFR)
Binding Specificity:	AA 1-186
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Cow DHFR aa. 1-186
Clone:	49-DHFR
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Human, Dog (Canine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us 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. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	Dihydrofolate Reductase (DHFR)
Alternative Name:	DHFR (DHFR Products)
Background:	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.
Molecular Weight:	21 kDa
Pathways:	Mitotic G1-G1/S Phases

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

Eymin, Gazzeri, Brambilla, Brambilla: "Distinct pattern of E2F1 expression in human lung tumours: E2F1 is upregulated in small cell lung carcinoma." in: **Oncogene**, Vol. 20, Issue 14, pp. 1678-87, (2001) (PubMed).

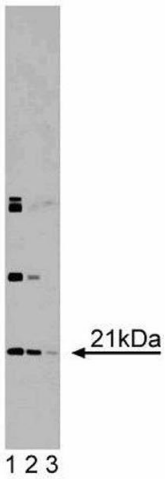
de Wind, Dekker, Claij, Jansen, van Klink, Radman, Riggins, van der Valk, vant Wout, te Riele: " HNPCC-like cancer predisposition in mice through simultaneous loss of Msh3 and Msh6 mismatch-repair protein functions." in: **Nature genetics**, Vol. 23, Issue 3, pp. 359-62, (1999) (PubMed).

Tang, Pao, Zhang: "Repair of benzo(a)pyrene diol epoxide- and UV-induced DNA damage in dihydrofolate reductase and adenine phosphoribosyltransferase genes of CHO cells." in: **The Journal of biological chemistry**, Vol. 269, Issue 17, pp. 12749-54, (1994) (PubMed).

Israel, Kaufman: "Dexamethasone negatively regulates the activity of a chimeric dihydrofolate reductase/glucocorticoid receptor protein." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 90, Issue 9, pp. 4290-4, (1993) (PubMed).

Masters, Attardi: "The nucleotide sequence of the cDNA coding for the human dihydrofolic acid reductase." in: **Gene**, Vol. 21, Issue 1-2, pp. 59-63, (1983) (PubMed).

Images



Western Blotting

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

Image 2.

Western Blotting

Image 3.