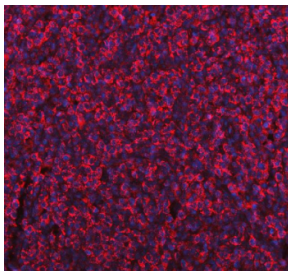


ME1 Antibody / Malic enzyme 1 (RQ8885)

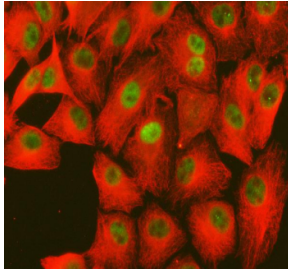
Catalog No.	Formulation	Size
RQ8885	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

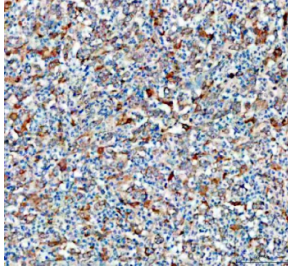
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P48163
Localization	Cytoplasm, nucleus, cell membrane
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This ME1 antibody is available for research use only.



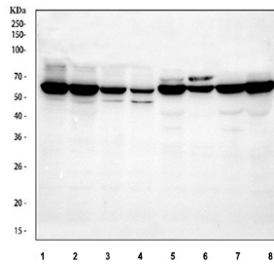
Immunofluorescent staining of FFPE human gastric cancer tissue with ME1 antibody (red) and DAPI nuclear stain (blue). HIER: steam section in pH8 EDTA buffer for 20 min.



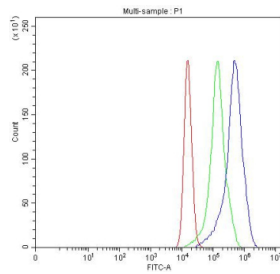
Immunofluorescent staining of FFPE human A549 cells with ME1 antibody (green) and Alpha Tubulin mAb (red). HIER: steam section in pH6 citrate buffer for 20 min.



IHC staining of FFPE human stomach cancer tissue with ME1 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human Caco-2, 2) human A549, 3) human HeLa, 4) human HaCaT, 5) rat liver and 6) rat kidney, 7) mouse liver and 8) mouse kidney tissue lysate with ME1 antibody. Predicted molecular weight ~64 kDa and ~55 kDa (two isoforms).



Flow cytometry testing of fixed and permeabilized human A549 cells with ME1 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= ME1 antibody.

Description

ME1 (Malic enzyme 1) is a cytosolic enzyme that catalyzes the oxidative decarboxylation of malate to pyruvate, producing NADPH in the process. This reaction plays a critical role in cellular metabolism by linking the tricarboxylic acid (TCA) cycle to lipid biosynthesis and antioxidant defense. ME1-derived NADPH is essential for fatty acid and cholesterol synthesis, as well as for maintaining redox balance in cells.

ME1 is expressed in various tissues, with particularly high levels in lipogenic tissues such as liver, adipose tissue, and lactating mammary gland. Its activity is regulated by nutritional and hormonal signals, including carbohydrate intake and insulin, making it a key player in metabolic adaptation. Due to its involvement in energy metabolism and biosynthetic processes, ME1 has been widely studied in the contexts of metabolic regulation and biochemical pathway integration.

The **ME1 antibody** is a valuable reagent for detecting ME1 in research applications such as western blot, immunohistochemistry, and immunofluorescence. Researchers use the ME1 antibody from NSJ Bioreagents to assess tissue-specific expression, study its role in lipid metabolism, and investigate its contribution to NADPH production. With strong specificity and reproducible performance, the ME1 antibody supports a wide range of studies in cellular metabolism, enzymology, and biochemical research.

Application Notes

Optimal dilution of the ME1 antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids M1-Q572) was used as the immunogen for the ME1 antibody.

Storage

After reconstitution, the ME1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.