Data Sheet (Cat.No.TMAC-04294)

Anti-XDH Antibody (4C20)

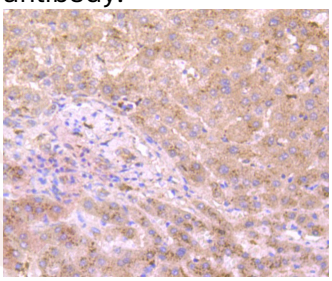
Product Details

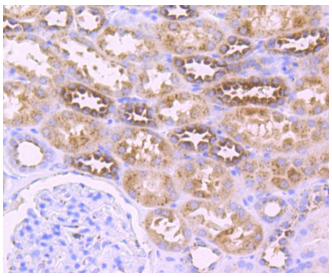
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 146 kDa.
Clone:	4C20
Purification:	ProG affinity purified

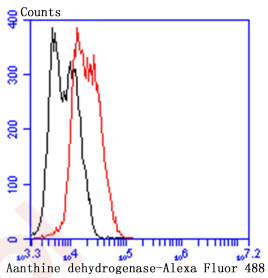
Applications

Verified Activity:

1. Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-xanthine dehydrogenase antibody. Counter stained with hematoxylin.
2. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-xanthine dehydrogenase antibody. Counter stained with hematoxylin.
3. Flow cytometric analysis of LOVO cells with xanthine dehydrogenase antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated Goat anti mouse IgG was used as the secondary antibody.







Application:	FCM,IHC
Recommended	IHC: 1:50-200; FCM: 1:50-100

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Peptide

Uniprot ID: P47989

Synonyms: EC 1.17.3.2;EC 1.17.1.4;Xanthine dehydrogenase/oxidase;XDHA;Xanthine oxidase;Xanthine oxidoreductase;XD;XOR;XO;Xanthine dehydrogenase

Research Background

The process of metabolizing purines to a common molecule known as xanthine is an essential process for the proper shuttling of uric acid. Xanthine oxidase is a flavoprotein enzyme that coordinates molybdenum and utilizes NAD+ as an electron acceptor to catalyze the oxidation of hypoxanthine to xanthine and then to uric acid. The predominant form of this enzyme is xanthine dehydrogenase, which is a homodimer that can be converted to xanthine oxidase by sulfhydryl oxidation or proteolytic modification. Xanthine oxidase is present in species ranging from bacteria to human and is ubiquitously expressed in mammalian tissues. In the oxidase form, this enzyme is coupled to the generation of free radicals. Individuals showing marked elevation of serum xanthine oxidase is suggestive of chronic liver disease and cholestasis, which is a condition defined by hepatic obstruction. Hepatic obstruction causes bile salts, the bile pigment bilirubin, and fats to accumulate in the blood stream instead of being eliminated normally. The clinical consequences of defects in xanthine oxidase range from mild to severe and even contribute to fatal disorders.

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