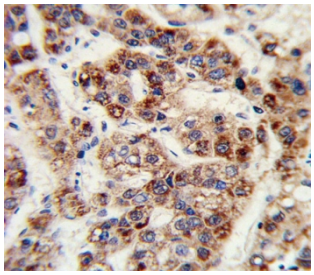
Ornithine transcarbamylase Antibody / OTCase / OTC (F55100)

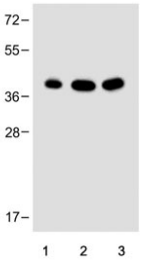
Catalog No.	Formulation	Size
F55100-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F55100-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

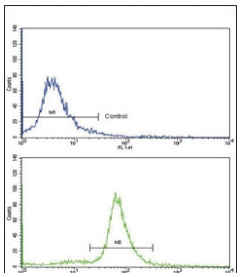
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P00480
Applications	Western blot: 1:1000-1:2000 Immunohistochemistry (FFPE): 1:10-1:50 Flow cytometry: 1:10-1:50 per million cells in 0.1ml
Limitations	This Ornithine transcarbamylase antibody is available for research use only.



Ornithine Transcarbamylase Antibody Human Hepatocarcinoma IHC. Immunohistochemical staining of FFPE human hepatocarcinoma tissue using Ornithine Transcarbamylase Antibody at 2 ug/ml. Heat-induced epitope retrieval was performed by steaming tissue sections in pH6 citrate buffer for 20 minutes, followed by HRP-conjugated secondary antibody detection and DAB chromogen. Strong cytoplasmic staining is observed in the hepatocarcinoma cells, consistent with the mitochondrial localization of ornithine transcarbamylase in hepatocytes. This Ornithine Transcarbamylase Antibody, also called OTC / OTCase Antibody, is suitable for studies of urea cycle metabolism, ammonia detoxification, mitochondrial enzymes, and hepatic protein expression.



Ornithine Transcarbamylase Antibody Human, Mouse and Rat Liver WB. Western blot analysis of lane 1: human liver, lane 2: mouse liver, and lane 3: rat liver tissue lysates using Ornithine Transcarbamylase Antibody. A specific band is detected at approximately 40 kDa, consistent with the expected molecular weight of ornithine transcarbamylase. The conserved detection across human, mouse, and rat liver tissues reflects the abundant hepatic expression of this mitochondrial urea cycle enzyme. This Ornithine Transcarbamylase Antibody, also called OTC / OTCase Antibody, is suitable for studies of urea cycle metabolism, ammonia detoxification, mitochondrial enzymes, and hepatic protein expression across multiple species.



Ornithine Transcarbamylase Antibody ATDC5 Cell FACS. Flow cytometric analysis of fixed and permeabilized ATDC5 cells using Ornithine Transcarbamylase Antibody. The blue histogram represents the isotype control, while the green histogram represents Ornithine Transcarbamylase antibody staining. A clear rightward shift of the antibody-stained population demonstrates specific detection of endogenous ornithine transcarbamylase expression. This Ornithine Transcarbamylase Antibody, also called OTC / OTCase Antibody, is suitable for studies of urea cycle metabolism, mitochondrial protein expression, ammonia detoxification, and flow cytometric analysis of Ornithine Transcarbamylase.

Description

Ornithine Transcarbamylase Antibody recognizes ornithine transcarbamylase (OTC), a mitochondrial enzyme that catalyzes a key step in the urea cycle by transferring a carbamoyl group from carbamoyl phosphate to ornithine, generating citrulline. This reaction is essential for the detoxification of ammonia produced during amino acid metabolism and represents one of the central pathways maintaining whole-body nitrogen balance. Because OTC activity is largely restricted to hepatocytes and, to a lesser extent, intestinal epithelial cells, it is a critical marker for studies of hepatic metabolism and mitochondrial function. NSJ Bioreagents provides Ornithine Transcarbamylase Antibody for investigations of nitrogen metabolism, liver biology, and mitochondrial enzymes.

OTC is localized within the mitochondrial matrix, where it functions in concert with the other enzymes of the urea cycle to convert toxic ammonia into urea for renal excretion. Proper regulation of this pathway is essential for maintaining normal neurological function and metabolic homeostasis. Alterations in OTC expression or activity can impair ammonia clearance, resulting in hyperammonemia and widespread metabolic consequences. Consequently, an Ornithine Transcarbamylase Antibody is valuable for studies examining mitochondrial metabolism, hepatic physiology, and the regulation of nitrogen disposal.

Inherited deficiency of OTC is the most common urea cycle disorder and is caused by pathogenic variants in the X-linked OTC gene. The resulting enzyme deficiency can produce a broad clinical spectrum ranging from severe neonatal hyperammonemia to later-onset metabolic disease. Beyond inherited disorders, OTC expression has also been investigated in liver development, hepatocellular function, metabolic adaptation, and experimental models of liver injury and mitochondrial dysfunction.

An Ornithine Transcarbamylase Antibody is a valuable research tool for investigating urea cycle biology, mitochondrial metabolism, ammonia detoxification, hepatic function, nitrogen homeostasis, and Ornithine Transcarbamylase expression.

Explore our Metabolism Antibodies page to discover additional antibodies for investigating metabolic enzymes, mitochondrial proteins, amino acid metabolism, and cellular energy pathways.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Ornithine transcarbamylase antibody

may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 71-98 from the human protein was used as the immunogen for the Ornithine transcarbamylase antibody.

Storage

Aliquot the Ornithine transcarbamylase antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Ornithine Transcarbamylase antibody, OTC antibody, OTCase antibody, Ornithine Carbamoyltransferase antibody

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