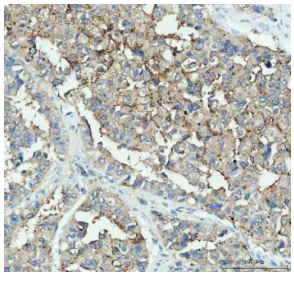
DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody (RQ4562)

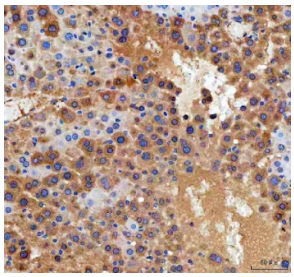
Catalog No.	Formulation	Size
RQ4562	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

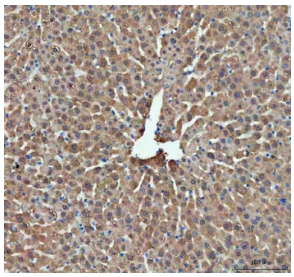
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P30046
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody is available for research use only.



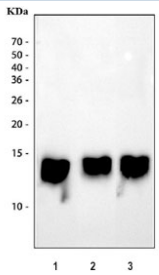
DDT Antibody Human Liver IHC. Immunohistochemical staining of FFPE human liver tissue using DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody following heat-induced epitope retrieval in pH8 EDTA buffer. DDT immunoreactivity is observed predominantly within the cytoplasm of hepatocytes, with widespread moderate staining throughout the liver parenchyma and comparatively weaker staining in surrounding stromal elements. The staining pattern is consistent with expression of D-dopachrome tautomerase in hepatic tissue and demonstrates the utility of this DDT Antibody for investigating macrophage migration inhibitory factor family biology in normal liver and hepatic disease research.



DDT Antibody Mouse Liver IHC. Immunohistochemical staining of FFPE mouse liver tissue using DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody following heat-induced epitope retrieval in pH8 EDTA buffer. Strong, diffuse cytoplasmic staining is observed throughout hepatocytes, while nuclei remain largely negative, demonstrating abundant hepatic expression of D-dopachrome tautomerase. The robust and uniform staining pattern supports the utility of this DDT Antibody for investigating macrophage migration inhibitory factor family biology, immune regulation, and inflammatory signaling in mouse liver and related experimental disease models.



DDT Antibody Rat Liver IHC. Immunohistochemical staining of FFPE rat liver tissue using DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody following heat-induced epitope retrieval in pH8 EDTA buffer. Diffuse cytoplasmic staining is observed throughout hepatocytes, with consistent immunoreactivity across the hepatic parenchyma and minimal background staining. The distribution is consistent with hepatic expression of D-dopachrome tautomerase and demonstrates the suitability of this DDT Antibody for investigating macrophage migration inhibitory factor family biology, inflammatory signaling, and liver physiology in rat models.



DDT Antibody Human, Rat and Mouse Liver WB. Western blot analysis of human, rat, and mouse liver tissue lysates using DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody. Lane 1: human liver; Lane 2: rat liver; Lane 3: mouse liver. A strong immunoreactive band is detected at approximately 14 kDa in all three liver samples, consistent with the predicted molecular weight of D-dopachrome tautomerase (DDT). The conserved banding pattern across human, rat, and mouse tissues demonstrates cross-species recognition and supports the use of this DDT Antibody for investigating macrophage migration inhibitory factor family biology, inflammatory signaling, and hepatic protein expression.

Description

DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody recognizes D-dopachrome tautomerase, a cytokine-like protein also widely known as MIF-2. DDT is a structural and functional homolog of macrophage migration inhibitory factor (MIF) and represents the second major member of the MIF cytokine family. Although originally characterized by its enzymatic tautomerase activity, DDT is now understood to participate primarily in extracellular signaling, immune regulation, inflammation, and cellular stress responses. The protein is expressed in numerous tissues and cell types and may be released into the extracellular environment, where it influences immune and stromal cell behavior. A DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody enables researchers to examine DDT expression, distribution, and regulation while distinguishing this MIF-related cytokine from other inflammatory mediators.

DDT shares several biological activities with MIF, including interaction with the cell surface receptor CD74 and activation of downstream signaling pathways involved in cell survival, proliferation, migration, and cytokine production. CD74 signaling may be enhanced through coreceptors such as CD44, contributing to activation of MAPK, PI3K-AKT, and other intracellular pathways. DDT can influence macrophage activity, leukocyte recruitment, endothelial responses, and communication between immune cells and surrounding tissues. Despite these similarities, DDT and MIF are not functionally identical, and their relative expression may vary according to tissue type, inflammatory state, and disease context. Investigating both proteins separately is therefore important for understanding the distinct and overlapping roles of the macrophage migration inhibitory factor family in innate immunity and tissue homeostasis.

Altered DDT expression has been investigated in cancer, inflammatory disease, cardiovascular disorders, metabolic dysfunction, pulmonary disease, and tissue injury. In cancer biology, DDT may support tumor cell proliferation, survival, angiogenesis, invasion, and interactions within the tumor microenvironment. Elevated expression or secretion has been reported in several malignancies, prompting interest in DDT as a potential biomarker and therapeutic target. DDT

signaling has also been studied in macrophage-driven inflammation, fibrosis, vascular remodeling, insulin resistance, and responses to oxidative or cellular stress. Because MIF and MIF-2 can produce overlapping biological effects, accurate measurement of DDT is important when researchers seek to determine which family member is responsible for a particular signaling response. A DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody supports studies examining these cytokine-dependent mechanisms across immune, metabolic, and disease models.

DDT antibodies may be used for Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, immunoprecipitation, and related protein detection methods, depending on the validation provided for each individual reagent. Appropriate controls and application-specific optimization remain important because DDT is closely related to MIF and may be present in multiple cellular compartments or extracellular environments. NSJ Bioreagents provides carefully validated antibodies to support investigations of cytokine biology, inflammatory signaling, immune regulation, cancer progression, and metabolic disease. A DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody is a valuable research reagent for detecting D-dopachrome tautomerase and advancing studies of MIF family signaling, immune cell communication, inflammation, and disease-associated tissue responses.

Explore our Cytokine Antibodies page to discover validated antibodies for DDT and other cytokines involved in immune regulation, inflammation, cell signaling, and disease research.

Application Notes

Optimal dilution of the DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody should be determined by the researcher.

Immunogen

Amino acids EFLTKELALGQDRILIRFFPLESWQIGKIGTVMTFL were used as the immunogen for the DDT antibody.

Storage

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

Alternate Names

DDT antibody, D-dopachrome tautomerase antibody, MIF-2 antibody, macrophage migration inhibitory factor 2 antibody, macrophage migration inhibitory factor family antibody, D-dopachrome decarboxylase antibody

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