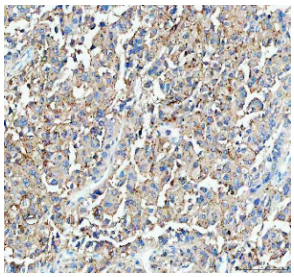
DDT Antibody / MIF-2 Antibody (R30521)

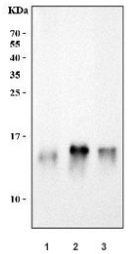
Catalog No.	Formulation	Size
R30521	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

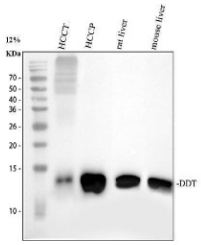
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P30046
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry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



DDT Antibody Human Liver Cancer IHC. Immunohistochemical staining of FFPE human liver cancer tissue using DDT Antibody / MIF-2 Antibody following heat-induced epitope retrieval in pH8 EDTA buffer. The antibody was applied at 2 ug/ml and detected using an HRP-conjugated secondary antibody with DAB chromogen. Moderate cytoplasmic immunoreactivity is observed throughout the malignant hepatocytes with relatively limited stromal staining, consistent with expression of D-dopachrome tautomerase (MIF-2) in hepatic tumor tissue. This staining pattern demonstrates the utility of this DDT Antibody for investigating MIF-2 expression, macrophage migration inhibitory factor family signaling, and liver cancer biology.



DDT Antibody Human Liver and Rodent Liver WB. Western blot analysis of human HCCT, rat liver, and mouse liver tissue lysates using DDT Antibody / MIF-2 Antibody. Lane 1: human HCCT; Lane 2: rat liver; Lane 3: mouse liver. A distinct immunoreactive band is detected at approximately 13 kDa in each sample, consistent with the predicted molecular weight of D-dopachrome tautomerase (MIF-2). The conserved banding pattern across human and rodent lysates demonstrates cross-species recognition and supports the use of this DDT Antibody for investigating MIF-2 expression, macrophage migration inhibitory factor family signaling, and inflammatory biology.



DDT Antibody Human Liver Cancer and Liver WB. Western blot analysis of human hepatocellular carcinoma tumor, human hepatocellular carcinoma paracancerous tissue, rat liver, and mouse liver lysates using DDT Antibody / MIF-2 Antibody. Lane 1: human hepatocellular carcinoma tumor (HCCT); Lane 2: human hepatocellular carcinoma paracancerous tissue (HCCP); Lane 3: rat liver; Lane 4: mouse liver. A specific immunoreactive band is detected at approximately 13 kDa in all samples, consistent with the predicted molecular weight of D-dopachrome tautomerase (MIF-2). The consistent detection across human tumor-associated tissue and rodent liver samples demonstrates cross-species recognition and supports the use of this DDT Antibody for investigating MIF-2 expression, macrophage migration inhibitory factor family signaling, liver biology, and cancer-associated inflammatory responses.

Description

DDT Antibody / MIF-2 Antibody recognizes D-dopachrome tautomerase, more commonly known as macrophage migration inhibitory factor 2 (MIF-2), a cytokine belonging to the macrophage migration inhibitory factor family. Although initially identified through its enzymatic activity toward D-dopachrome substrates, MIF-2 is now primarily recognized for its role as an immunoregulatory signaling molecule. Structurally related to macrophage migration inhibitory factor (MIF), MIF-2 shares several biological properties while also exhibiting distinct tissue distribution and functional characteristics. It is expressed in numerous organs, including the liver, lung, kidney, and immune tissues, where it contributes to communication between immune, epithelial, endothelial, and stromal cells. A DDT Antibody / MIF-2 Antibody enables researchers to evaluate protein expression and localization while supporting studies focused on MIF family biology and inflammatory signaling.

MIF-2 activates many of the same signaling pathways as MIF through interaction with the CD74 receptor complex, leading to regulation of MAPK, PI3K-AKT, and other pathways involved in cell survival, proliferation, migration, and cytokine production. However, D-dopachrome tautomerase (MIF-2) also demonstrates unique biological functions that distinguish it from MIF in specific physiological and pathological settings. Current evidence suggests that MIF-2 participates in macrophage activation, leukocyte recruitment, tissue repair, angiogenesis, and cellular responses to oxidative stress. Continued investigation of D-dopachrome tautomerase is improving our understanding of how individual members of the MIF cytokine family coordinate innate immune responses and maintain tissue homeostasis.

Altered MIF-2 expression has been associated with numerous human diseases, including cancer, chronic inflammatory disorders, cardiovascular disease, pulmonary injury, fibrosis, metabolic dysfunction, and liver disease. Increased expression has been reported in several tumor types, where MIF-2 may contribute to tumor cell survival, immune modulation, angiogenesis, and remodeling of the tumor microenvironment. D-dopachrome tautomerase has also attracted interest as a potential biomarker and therapeutic target because of its involvement in inflammatory cytokine networks and tissue injury responses. A DDT Antibody / MIF-2 Antibody provides a valuable tool for examining these disease-associated mechanisms and for distinguishing MIF-2 expression from that of closely related macrophage migration inhibitory factor family members.

DDT antibodies are suitable for applications including Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, immunoprecipitation, and related protein detection methods when validated for the specific application. Appropriate experimental controls remain important because MIF-2 shares structural similarity with MIF while maintaining

distinct biological functions. NSJ Bioreagents provides carefully validated antibodies to support investigations of immune regulation, inflammatory signaling, cytokine biology, cancer progression, and tissue injury. A DDT Antibody / MIF-2 Antibody is a valuable research reagent for detecting D-dopachrome tautomerase and advancing studies of MIF-2 signaling, immune cell communication, inflammation, and disease biology.

Visit our DDT Antibody / Macrophage Migration Inhibitory Factor Family Antibody page to explore additional validated antibodies and research tools for investigating DDT expression, MIF family signaling, immune regulation, inflammation, and disease-associated cellular responses.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the DDT Antibody / MIF-2 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human DDT/MIF-2 (RFFPLESWQIGKIGTVMTFL) was used as the immunogen for this 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, MIF-2 antibody, macrophage migration inhibitory factor 2 antibody, D-dopachrome tautomerase antibody, D-dopachrome decarboxylase antibody, MIF family cytokine antibody

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