

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat DDT in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse DDT Pro2-Leu118 Accession # O35215
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Mouse DDT (D-dopachrome tautomerase; also D-dopachrome decarboxylase and Phenylpyruvate tautomerase) is a 13 kDa member of the carboxy-lyases family. The DDT gene in mouse, rat and human is identical in exon structure to the Macrophage migration inhibitory factor (MIF) gene. Both genes have 2 introns that are located at equivalent positions, relative to a 2-fold repeat in protein structure. The genes for DDT and MIF are closely linked on human chromosome 22 and mouse chromosome 10. DDT mRNA levels in human adipocytes are negatively correlated with obesity. The study on DDT knock-down adipocytes shows an increase in the expression of genes involved in both lipolysis and lipogenesis. DDT binds CD74 with high affinity, leading to activation of ERK1/2 MAP kinase and downstream pro-inflammatory pathways. Circulating levels of DDT correlate with disease severity in sepsis or malignancy. DDT also inhibits chemotaxis induced by CCL2 in macrophages. DDT in tumor angiogenesis promotes the expression of pro-angiogenic factors CXCL8 (IL8) and VEGF-A in non-small cell lung carcinoma cells through the CD74 receptor. Over aa 2-118, mouse DDT shares 95.7% and 73.5% aa identity with rat and human DDT, respectively.

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