D-Dopachrome Tautomerase (D-DT): An Immune Response Regulator

OCR Number: OCR 5557

Description:

- D-dopachrome tautomerase (D-DT/MIF-2) is a homologue of the pivotal immune response regulator, macrophage migration inhibitory factor (MIF).
- Clinical serum samples show that circulating levels of D-DT correlates with the severity of inflammatory disease and malignancy.
- Anti-D-DT antibodies reduce circulating levels of pro-inflammatory cytokines, such as TNF-?, IFN-?, IL-1?; while increasing concentrations of the anti-inflammatory cytokine IL-10 on target cells.
- D-DT is an endogenous AMPK activator and is less likely to have off-target effects.
- As shown in the figure, when administered 2 hours prior to LPS injection, D-DT antibody therapy increases survival in a mouse model of LPS-induced lethal endotoxemia.
- OCR 5557 offers neutralizing monoclonal and rabbit polyclonal antibodies that are not cross-reactive with MIF.

![Graph showing percent survival with control and anti-D-DT treatment](image-url)
Licensing Contact: David Lewin
david.lewin@yale.edu