

Human TDO Fluorogenic Inhibitor Screening Assay Kit

Product Information

Cat.No.

Kit-1761

Product Overview

L-tryptophan (L-Trp) is an essential amino acid necessary for protein synthesis in mammalian cells and the L-Trp to kynurenine (Kyn) pathway is firmly established as a key regulator of innate and adaptive immunity. Catabolism of L-Trp to Kyn maintains an immunosuppressive microenvironment by starving immune cells of L-Trp and releasing degradation products of L-Trp that have immunosuppressive functions. Tryptophan 2,3 dioxygenase (TDO) a rate limiting enzymes in this pathway, is upregulated in many tumors, providing cancer cells with an avenue for immune evasion.

Size

96 reactions

Description

The TDO Fluorogenic Inhibitor Screening Assay Kit is designed to measure enzyme inhibition of tryptophan 2,3-dioxygenase (TDO). The TDO Fluorogenic Inhibitor Screening Assay Kit is simple to use and detects fluorescence at long wavelengths, which minimizes potential errors due to compound interference. In the assay, the inhibitor and enzyme are added to a sample containing L-Trp substrate. After a 1 hour incubation at room temperature, the fluorescence solution is added and incubated at 37°C for four hours. Activity is measured by reading sample fluorescence at $\lambda=510$ nm following excitation of the reaction product at $\lambda=400$ nm.

Applications

Useful for the study of TDO enzymology, inhibitor screening, and selectivity profiling.

Storage

Stable at least 6 months from date of receipt, when stored as directed. Kit components require different storage conditions. Be sure to store each component at the proper temperature upon arrival.

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Kit Components

TDO His-Tag: 50 µg; -80°C TDO Fluorogenic Reaction Solution: 2 x 10 ml; -80°C TDO Buffer: 1 ml; -80°C Fluorescence Solution: 2 x 1 ml; -80°C Black 96 Well Assay-Plate: 1 Plate sealing film: 1
