

Immunotherapy Enzymes

A number of enzymes, especially those involved in metabolic pathways, play an important role in regulating the immune system. One important pathway is the L-Tryptophan (L-Trp) to kynurenine (Kyn) pathway. Catabolism of L-Trp to Kyn maintains an immunosuppressive microenvironment by starving immune cells of L-Trp and releasing L-Trp degradation products that have immunosuppressive functions.

Indoleamine 2,3-dioxygenases (IDO1 & IDO2) and Tryptophan 2,3-dioxygenase (TDO), enzymes that catalyze the first and rate limiting steps in this pathway, are upregulated in many tumors, providing cancer cells with an avenue for immune evasion.

A third group of tryptophan enzymes is the tryptophan hydroxylases (TPH), which catalyze key steps in important metabolic pathways, including serotonin synthesis. Studying the catabolism of amino acids in tumor environments and the molecular sensors that mediate these metabolic occurrences can help identify the mechanisms that support tumor progression as well as enable cancer cells to evade the host's immune system.

BPS offers a unique portfolio of enzymes and assay kits to study these critical players in immune system function.

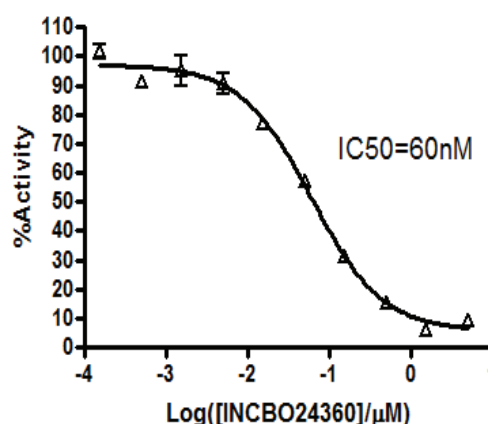
Recombinant Proteins

Protein Name	Cat. #	Size
IDO1, His-tag	71182	50 µg
IDO2, His-tag	71194	50 µg
TDO, His-tag	71195	50 µg
TPH1, His-tag	71192	50 µg
TPH2, His-tag	71193	50 µg
5'-Nucleotidase/CD73, His-tag	71184	50 µg
N-formyl-kynurenine		50 µl

Assay Kits

Assay Kit Name	Cat. #	Size
IDO1 Inhibitor Screening Assay Kit	72021	96 rxns
IDO2 Inhibitor Screening Assay Kit	72022	96 rxns
TDO Inhibitor Screening Assay Kit	72023	96 rxns

Inhibition of IDO1 By INCB024360



Inhibition of IDO1 binding by the inhibitor INCB024360, Cat. #27338, using the IDO1 Inhibitor Screening Assay Kit, Cat. #72021.

Inhibitors

Inhibitor Name	Cat. #	Size
INCB024360	27338-1	10 mg
	27338-2	100 mg
NLG919	27337-1	10 mg
	27337-2	50 mg

IDO and TDO inhibitor screening available!

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Rev. Mar 2015