

## Active Recombinant Human IDO1, His-tagged

**Cat. No.** IDO1-294H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Product Overview</b> | Human IDO (aa 1-403) is fused at the C-terminus to a His-tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ProteinLength</b>    | 1-403 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Description</b>      | IDO catalyzes the first and rate-limiting step in the main pathway of human tryptophan catabolism, the kynurenine pathway. Proinflammatory mediators, such as endotoxin and IFN- $\gamma$ induce the expression of IDO in several tissues. IDO-dependent suppression of T cell responses might function as natural immunoregulatory mechanism. Physiological IDO activity has been implicated in T cell tolerance to tumors, dysfunctional selftolerance in non-obese diabetic (NOD) mice, and as a protective negative regulator in autoimmune disorders. |
| <b>Form</b>             | Liquid. 0.2 $\mu$ m-filtered solution in 50mM TRIS-Cl, pH 7.4, containing 1mM EDTA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bio-activity</b>     | Specific Activity: >100'000U/mg protein with L-tryptophan as substrate. One unit is defined as the amount of enzyme that produces 1nmol of kynurenine per hour.                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Mass</b>   | ~40kDa (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>           | ≥90% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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|                            |                                                                                                                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>           | Working aliquots are stable for up to 3 months when stored at -20°C.                                                                                                                            |
| <b>Storage</b>             | Short Term Storage: +4°C; Long Term Storage: -20°C. After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.                                                               |
| <b>Concentration</b>       | 1mg/ml                                                                                                                                                                                          |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                 |
| <b>Gene Name</b>           | IDO1 indoleamine 2,3-dioxygenase 1 [ Homo sapiens ]                                                                                                                                             |
| <b>Official Symbol</b>     | IDO1                                                                                                                                                                                            |
| <b>Synonyms</b>            | IDO1; indoleamine 2,3-dioxygenase 1; IDO, INDO, indoleamine pyrrole 2,3 dioxygenase; indole 2,3-dioxygenase; indolamine 2,3 dioxygenase; indoleamine-pyrrole 2,3-dioxygenase; IDO; INDO; IDO-1; |
| <b>Gene ID</b>             | 3620                                                                                                                                                                                            |
| <b>mRNA Refseq</b>         | NM_002164                                                                                                                                                                                       |
| <b>Protein Refseq</b>      | NP_002155                                                                                                                                                                                       |
| <b>MIM</b>                 | 147435                                                                                                                                                                                          |
| <b>UniProt ID</b>          | P14902                                                                                                                                                                                          |
| <b>Chromosome Location</b> | 8p12-p11                                                                                                                                                                                        |
| <b>Pathway</b>             | African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism,                                |

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organism-specific biosystem; Metabolism of amino acids and derivatives, organism-specific biosystem; Tryptophan catabolism, organism-specific biosystem; Tryptophan metabolism, organism-specific biosystem;

**Function**

electron carrier activity; heme binding; indoleamine 2,3-dioxygenase activity; metal ion binding; oxidoreductase activity; tryptophan 2,3-dioxygenase activity;

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