

Human IDO1 Protein, His Tag (active enzyme, MALS verified)

Catalog # ID1-H5143



BIOSYSTEMS
Acro
Surprise Inside!

Synonym

IDO, IDO-1, INDO

Source

Human IDO1 Protein, His Tag(ID1-H5143) is expressed from E. coli cells. It contains AA Ala 2 - Gly 403 (Accession # [P14902-1](#)).

Predicted N-terminus: Met

Molecular Characterization

Poly-his IDO1(Ala 2 - Gly 403)
P14902-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 47.2 kDa. The protein migrates as 45-50 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM Tris, 300 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

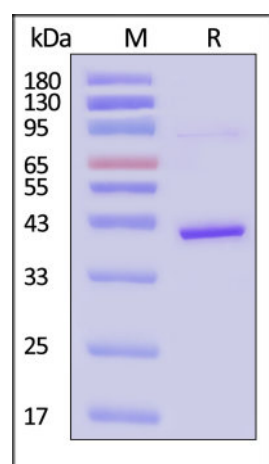
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE

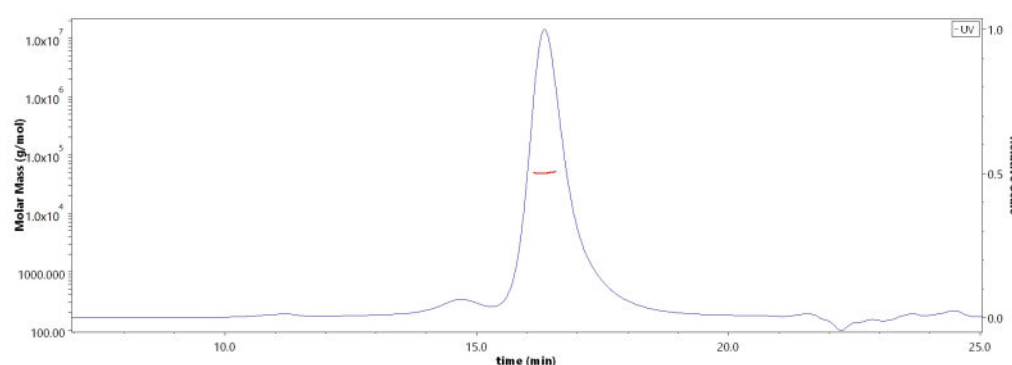


Human IDO1 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity

Measured by its ability to oxidize L-tryptophan to N-formyl-kynurenine. The specific activity is >400 pmol/min/ μg (QC tested).

SEC-MALS



The purity of Human IDO1 Protein, His Tag (Cat. No. ID1-H5143) is more than 85% and the molecular weight of this protein is around 40-60 kDa verified by SEC-MALS.

[Report](#)

Background

This gene encodes indoleamine 2,3-dioxygenase (IDO) - a heme enzyme that catalyzes the first and rate-limiting step in tryptophan catabolism to N-formyl-kynurenine. This enzyme acts on multiple tryptophan substrates including D-tryptophan, L-tryptophan, 5-hydroxy-tryptophan, tryptamine, and serotonin. This

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enzyme is thought to play a role in a variety of pathophysiological processes such as antimicrobial and antitumor defense, neuropathology, immunoregulation, and antioxidant activity. Through its expression in dendritic cells, monocytes, and macrophages this enzyme modulates T-cell behavior by its peri-cellular catabolization of the essential amino acid tryptophan.

Clinical and Translational Updates

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