

Human ODC protein, His tag

Cat. No. GTX00240-pro

Applications Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

Ornithine decarboxylase (ODC) is an enzyme can catalyze the decarboxylation of ornithine (a product of the urea cycle) to form putrescine. The ornithine decarboxylation reaction catalyzed by ornithine decarboxylase is the first and committed step in the synthesis of polyamines, particularly putrescine, spermidine and spermine. Polyamines are important for stabilizing DNA structure, the DNA double strand-break repair pathway and as antioxidants. Therefore, ornithine decarboxylase is an essential enzyme for cell growth, producing the polyamines necessary to stabilize newly synthesized DNA. Lack of ODC causes cell apoptosis in embryonic mice, induced by DNA damage. Besides, Thymidine Kinase 1, Soluble (TK1) has been identified as an interactor of ODC, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ODC and recombinant human TK1. Briefly, ODC were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to TK1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-ODC pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of ODC and TK1 was in a dose dependent manner.

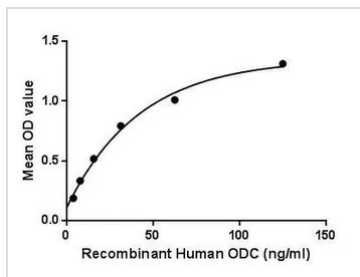
Observed MW (kDa) 27 kDa.

Properties

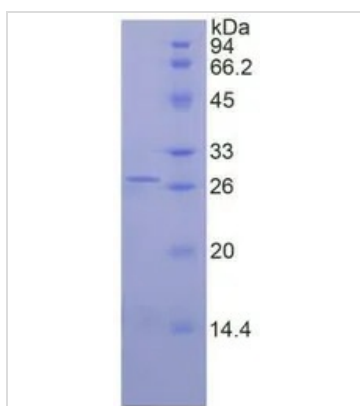
Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Ile234~Ala453 (NP_001274118.1)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

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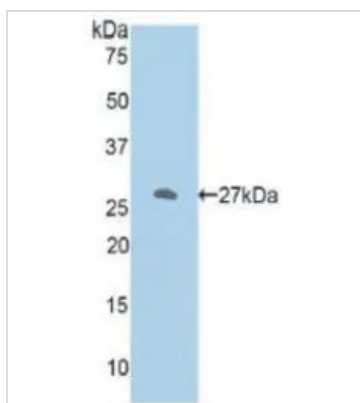
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DATA IMAGES

GTX00240-pro Functional Assay Image

Functional ELISA analysis of GTX00240-pro Human ODC protein which can bind immobilized TK1 protein.


GTX00240-pro Image

SDS-PAGE analysis of GTX00240-pro Human ODC protein.


GTX00240-pro Image

WB analysis of GTX00240-pro Human ODC protein.



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