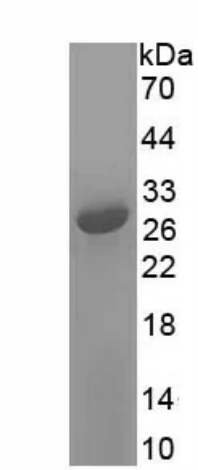
Active Ornithine Decarboxylase (ODC)

Catalog#:PEH12652

概述（Summary）

别称（Alternative Names）	ODC1
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ile234-Ala453】
Accession #	P11926
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	25.9 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Catalyzes the first and rate-limiting step of polyamine biosynthesis that converts ornithine into putrescine, which is the precursor for the polyamines, spermidine and spermine. Polyamines are essential for cell proliferation and are implicated in cellular processes, ranging from DNA replication to apoptosis.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

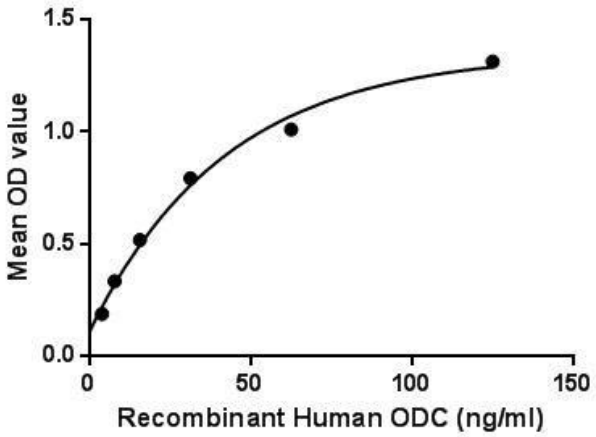


Figure. The binding activity of ODC with TK1. Ornithine decarboxylase (ODC) is an enzyme can catalyze the decarboxylation of ornithine (a product of the urea cycle) to form putrescine. The ornithine decarboxylation reaction catalyzed by ornithine decarboxylase is the first and committed step in the synthesis 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 100µL were then transferred to TK1-coated microtiter wells and incubated for 2h at 37℃. 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℃. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of ODC and TK1 was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.