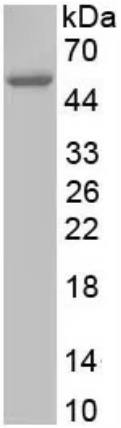
Active Isocitrate Dehydrogenase 2, mitochondrial (IDH2)

Catalog#:PEH12977

概述（Summary）

别称（Alternative Names）	IDH; IDP; ICD-M; IDHM; mNADP-IDH; Isocitrate dehydrogenase [NADP], mitochondrial; Oxalosuccinate decarboxylase
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）	【Ala40-Gln452】
Accession #	P48735
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	50.3 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 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）	Plays a role in intermediary metabolism and energy production. It may tightly associate or interact with the pyruvate dehydrogenase complex.

电泳图（SDS-PAGE image）



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

活性图（Bioactivity image）

$$\text{Specific Activity (pmol/min/ug)} = \frac{\text{Adjusted } V_{max}^{*} \text{ (OD/min) x well volume (L) x } 10^{12} \text{ pmol/mol}}{\text{ext. coeff}^{**} \text{ (M}^{-1}\text{cm}^{-1}\text{) x path corr.}^{***} \text{ (cm) x amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank
**Using the extinction coefficient 6270 $M^{-1}cm^{-1}$
***Using the path correction 0.320 cm

Isocitrate Dehydrogenase 2 (IDH2) catalyzes the oxidative decarboxylation of isocitrate to alpha-ketoglutarate. There are two subclasses in the IDH family, one of them utilizing NADP as the electron acceptor and the other using NAD . The protein encoded by this gene is the NADP dependent isocitrate dehydrogenase found in the mitochondrial. The activity of recombinant human IDH2 was measured by the ability to oxidatively decarboxylate isocitrate to 2-oxoglutarate. The reaction was performed in 25 mM Tris, 0.5 mM MnCl2, 5 mM DTT, pH 7.5 (Assay Buffer), initiated by addition 50 µL of various concentrations of IDH2 (diluted by Assay Buffer) to 50 µL of substrate mixture consisted of 1 mM NADP and 2 mM isocitric acid. The final well serves as a negative control with no IDH2, replaced with 50µl assay buffer. Incubated at 25℃ for 5min, then read at a wavelength of 340 nm. The specific activity of recombinant human IDH2 is >200 pmol/min/µg.

注意事项（Note）

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