Recombinant Human 15-PGDH Protein (His Tag)

Catalog Number: PKSH031209

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

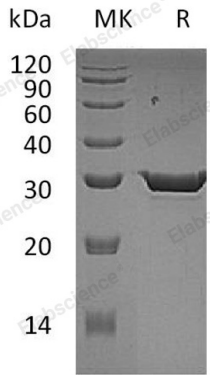
Description

Species	Human
Source	E.coli-derived Human 15-PGDH protein Met 1-Gln 266, with an C-terminal His
Calculated MW	29.7 kDa
Observed MW	27 kDa
Accession	NP_000851.2
Bio-activity	Measured by the production of NADH during the oxidation of PGF2α. The specific activity is > 1, 500 pmoles/min/μg.

Properties

Purity	> 92 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM DTT, 10% glycerol, pH 7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

15-hydroxyprostaglandin dehydrogenase [NAD+], also known as Prostaglandin dehydrogenase 1, HPGD, and PGDH1, is a member of the short-chain dehydrogenases/reductases (SDR) family. Prostaglandins (PGs) play a key role in the onset of labor inmany species and regulate uterine contractility and cervicaldilatation. Therefore, the regulation of prostaglandin outputby PG synthesizing and metabolizing enzymes in the human myometrium may determine uterine activitypatterns in human labor both at preterm and at term. Prostaglandin dehydrogenase (PGDH) metabolizes prostaglandins (PGs) to render them inactive. HPGD is down-regulated by cortisol, dexamethasone and betamethasone and down-regulated in colon cancer. It is up-regulated by TGFB1. HPGD contributes to the regulation of events that are under the control of prostaglandin levels. HPGD catalyzes the NAD-dependent dehydrogenation of lipoxin A4 to form 15-oxo-lipoxin A4. and inhibits in vivo proliferation of colon cancer cells. Defects in HPGD are the cause of primary hypertrophic osteoathropathy autosomal recessive (PHOAR), cranioosteoarthropathy (COA),and isolated congenital nail clubbing.

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