Datasheet for ABIN7196144

HPGD Protein (His tag)

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Overview

Quantity:	50 µg
Target:	HPGD
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This HPGD protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human 15-PGDH Protein (His Tag)(Active)
Sequence:	Met 1-Gln 266
Characteristics:	A DNA sequence encoding the human HPGD (NP_000851.2) (Met 1-Gln 266) was expressed, with a polyhistidine tag at the C-terminus.
Purity:	> 92 % as determined by reducing SDS-PAGE.
Biological Activity Comment:	Measured by the production of NADH during the oxidation of PGF2α. The specific activity is >1,500 pmoles/min/µg.

Target Details

Target:	HPGD
Alternative Name:	15-PGDH (HPGD Products)

Target Details

Background:	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 in many species and regulate uterine contractility and cervical dilatation. Therefore, the regulation of prostaglandin output by PG synthesizing and metabolizing enzymes in the human myometrium may determine uterine activity patterns 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. Synonym: 15-Hydroxyprostaglandin Dehydrogenase [NAD(+)]; 15-PGDH; Prostaglandin Dehydrogenase 1; HPGD; PGDH1;PGDH;PHOAR1;SDR36C1
Molecular Weight:	29.7 kDa
NCBI Accession:	NP_000851

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 50 mM Tris, 100 mM NaCl, 0.5 mM DTT, 10 % glycerol, pH 7.5
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.