Active Recombinant Mouse Hpgd protein, His-tagged

Cat. No. Hpgd-2525M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Hpgd(Met 1-Ser 269) fused with His tag at C-terminal was expressed in E. coli.
Species	Mouse
Source	E.coli
ProteinLength	Met 1-Ser 269
Description	Mouse 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.

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Predicted N Terminal	Met 1
Form	Lyophilized from sterile PBS, pH 8.0, 20% glycerol1. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA.2. Please contact us for any concerns or special requirements.
Bio-activity	Measured by its ability to bind Rhesus ErbB3-His in functional Elisa.
Molecular Mass	The recombinant mouse HPGD consisting of 279 amino acids and has a calculated molecular mass of 30.6 kDa. rmHPGD migrates as an approximately 30 kDa band in SDS-PAGE under reducing conditions as predicted.
Purity	> 90 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

GENE INFORMATION

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Gene Name	Hpgd hydroxyprostaglandin dehydrogenase 15 (NAD) [Mus musculus]
Official Symbol	Hpgd
Synonyms	HPGD; hydroxyprostaglandin dehydrogenase 15 (NAD); 15-hydroxyprostaglandin dehydrogenase [NAD(+)]; PGDH; prostaglandin dehydrogenase 1; 15-hydroxyprostaglandin dehydrogenase; 15-PGDH; AV026552; MGC14001;
Gene ID	15446
mRNA Refseq	NM_008278
Protein Refseq	NP_032304
MIM	
UniProt ID	Q8VCC1
Chromosome Location	8; 8 B3.2
Pathway	Arachidonic acid metabolism via COX (Cyclooxygenase) pathway, organism-specific biosystem; Arachidonic acid metabolism via LOX (Lipooxygenase) pathway, organism-specific biosystem; Prostaglandin Synthesis and Regulation, organism-specific biosystem; Transcriptional misregulation in cancer, organism-specific biosystem; Transcriptional misregulation in cancer, conserved biosystem; biosynthesis of prostaglandins, organism-specific biosystem;
Function	15-hydroxyprostaglandin dehydrogenase (NAD+) activity; 15-hydroxyprostaglandin dehydrogenase (NAD+) activity; NAD binding; NAD+ binding; catalytic activity; nucleotide binding; oxidoreductase activity; prostaglandin E receptor activity;

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