15-PGDH/HPGD Protein, Mouse (His)

Cat. No.:	HY-P75555
Synonyms:	15-hydroxyprostaglandin dehydrogenase [NAD(+)]; 15-PGDH; Prostaglandin dehydrogenase 1; HPGD; PGDH1
Species:	Mouse
Source:	E. coli
Accession:	Q8VCC1 (M1-S269)
Gene ID:	15446
Molecular Weight:	Approximately 30 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 8.0, 20% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	15-PGDH/HPGD protein plays a pivotal role in catalyzing the NAD-dependent dehydrogenation (oxidation) of a diverse range of hydroxylated polyunsaturated fatty acids, predominantly eicosanoids and docosanoids, including prostaglandins, lipoxins, and resolvins, resulting in the formation of their corresponding keto (oxo) metabolites. This enzymatic activity is crucial for modulating cellular responses, particularly by reducing the levels of pro-proliferative prostaglandins such as prostaglandin E2. By generating oxo-fatty acid products, 15-PGDH/HPGD can profoundly influence cell function and counteract the inflammatory effects of certain cytokines. Furthermore, the enzyme plays a role in inactivating resolvins, including resolvins E1, D1, and D2, which are involved in the resolution phase of acute inflammation and obesity-induced adipose inflammation.

Caution: Product has not been fully validated for medical applications. For research use only.

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