Human DPYS / Dihydropyrimidinase Protein (His & GST Tag)

Catalog Number: **14884-H20B**

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General Information

Gene Name Synonym:

DHP; DHPase; 1200017I10Rik; 1300004I01Rik; DHP; DHPase

Protein Construction:

A DNA sequence encoding the human DPYS (NP_001376.1) (Met1-Pro519) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant human DPYS/GST chimera consists of 756 amino acids and has a calculated molecular mass of 84.4 kDa. The recombinant protein migrates as an approximately 69 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 3mM DTT, 10% glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

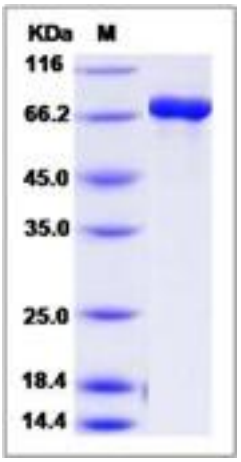
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

DPYS, also known as dihydropyrimidinase, belongs to the DHOase family, hydantoinase/dihydropyrimidinase subfamily. DPYS catalyzes the second step of the reductive pyrimidine degradation, the reversible hydrolytic ring opening of dihydropyrimidines. It can catalyzes the ring opening of 5,6-dihydrouracil to N-carbamyl-alanine and of 5,6-dihydrothymine to N-carbamyl-amino isobutyrate. DPYS is expressed at a high level in liver and kidney as a major 2.5-kb transcript and a minor 3.8-kb transcript. Defects in the DPYS gene are linked to dihydropyrimidinuria.

References

1.Thomas HR. et al., 2008, Genomics. 18 (1): 25-35.
2.Thomas HR. et al., 2008, Pharmacogenet Genomics. 17 (11): 973-87.
3.Van Kuilenburg AB. et al., 2007, Mol Genet Metab. 91 (2): 157-64.