Recombinant Human MPST Protein Data Sheet

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>hRP-M0339-EF012</th>
</tr>
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<tbody>
<tr>
<td>Size</td>
<td>100 μg</td>
</tr>
<tr>
<td>Protein Name</td>
<td>3-mercaptopuruvate sulfurtransferase</td>
</tr>
<tr>
<td>Protein Symbol</td>
<td>MPST</td>
</tr>
<tr>
<td>Original Source</td>
<td>Homo sapiens</td>
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<tr>
<td>Expression System</td>
<td>E.coli</td>
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<td>GenBank Accession #</td>
<td>BC018717.1</td>
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<td>Uniprot Accession #</td>
<td>P25325</td>
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**Description**

This protein encoded by this gene catalyzes the transfer of a sulfur ion from 3-mercapto puruvate to cyanide or other thiol compounds. It may be involved in cysteine degradation and cyanide detoxification. There is confusion in literature between this protein (mercapto puruvate sulfurtransferase, MPST), which appears to be cytoplasmic, and thiosulfate sulfurtransferase (rhodanese, TST, GeneID:7263), which is a mitochondrial protein. Deficiency in MPST activity has been implicated in a rare inheritable disorder known as mercaptolactate-cysteine disulfiduria (MCDU). Alternatively spliced transcript variants encoding same or different isoforms have been identified for this gene.

**Application**

WB, ELISA, IP, antibody production, protein array

**Fusion tag**

N-His

**Peptide Length**

312aa(including fusion tag)

**Molecular Weight**

35.6kDa(including fusion tag)

**pI**

7.9

**Activity**

NA

**Storage**

Storage buffer: 20mM Tris.Cl, 50mM NaCl, 50% Glycerol, pH9.0. Store at -80°C and avoid repeated freeze-thaw cycles.

**Purity**

Reference:

- The mercaptopuruvate pathway in cysteine catabolism: a physiologic role and related disease of the multifunctional 3-mercaptopuruvate sulfurtransferase.
- Thioredoxin and dihydrolipoic acid are required for 3-mercaptopuruvate sulfurtransferase to produce hydrogen sulfide.
- The effect of three alpha-keto acids on 3-mercaptopuruvate sulfurtransferase activity.
- A point mutation in a silencer module reduces the promoter activity for the human
mercaptopyruvate sulfurtransferase.