
Product Data Sheet

Product Name: MutS
 Cat. No.: GP23995
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	MutS; Thermus Aquaticus DNA Mismatch Repair Protein; DNA mismatch repair protein MutS.		
Amino Acid Sequence	<p>MKIEHMEGML KGEGGPLPP LLQYVELRD QYPDYLLLFQ VGDFYECFGE DAERLARALG LVLTHKTSKD FTTPMAGIPL RAFEAYAERL LKMGFRLAVA DQVEPAEEAE GLVRREVTQL LTPGTLQES LLPREANYLA AIATGDGWGL AFLDVSTGEF KGTVLKSKSA LYDELFRHRP AEVLLAPELL ENGAFLEFR KRFPVMLSEA PFEPEGEGPL ALRRARGALL AYAQRTQGGA LSLQPFIFYD PGAFMRLPEA TLRALEVFEP LRGQDTLFSV LDETRTAPGR RLLQSWLRHP LLDRGPLEAR LDRVEGFVRE GALREGVRRLL LYRLADLERL ATRLELGRAS PKDLGALRRS LQILPELRAL LGEEVGLPDL SPLKEELEAA LVEDPPLKVS EGGLIREGYD PDLDALRAAH REGVAYFLEL EERERERTGI PTLKVGYNVAV FGYYLEVTRP YYERVPKEYR PVQTLKDRQR YTLPEMKEKE REVYRLEALI RRREEEVFLE VRERAKRQAE ALREAARILA ELDVYAALAE VAVRYGYVRP RFGDRLQIRA GRHPVVERRT EFVPNDLEMA HELVLITGPN MAGKSTFLRQ TALIALLAQV GSFVPAEEAH LPLFDGIYTR IGASDDLGG KSTFMVEMEE VALILKEATE NSLVLLDEVG RGTSSLDGVA IATAVAEALH ERRAYTLFAT HYFELTALGL PRLKNLHVAA REEAGGLVFY HQVLPGPASK SYGVEVAAMA GLPKEVVARA RALLQAMAAR REGALDAVLE RLLALDPDRL TPLEALRLLQ ELKALALGAP LDTMKGKLAA ALEHHHHHHH.</p>		
Formulation	The MutS protein is supplied in 20mM Tris-HCl, pH-8, 250mM NaCl, 0.1mM EDTA, 1mM DTT and 50% Glycerol.		

Introduction

The MutS DNA Mismatch Protein Identifies heteroduplex DNAs comprising mis-paired or unpaired bases. The MutS DNA Mismatch Protein binds in vitro to heteroduplex DNAs

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

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comprising mis-paired or unpaired bases over a varied temperature range from 4-70 °C and obtains a thermostable ATPase activity. The MutS DNA Mismatch Protein is active at temperature between 0 to 75°C. Since The MutS DNA Mismatch Protein competently binds to 1-4 bases deletion (or insertion) and mismatch base pairs of GT, CT and AG, it is suitable for sensing these mutations. Mutations can be distinguished in polyacrylamide gels or on a solid phase such as Ni agarose or beads or magnetic Ni-NTA particles.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

DNA Mismatch Repair Protein MutS *Thermus Aquaticus* Recombinant produced in *E.coli* is a single, non-glycosylated polypeptide chain containing 829 amino acids and having a molecular mass of 92.8kDa. The *Thermus Aquaticus* is fused to a 6 amino acid His-Tag at C-terminus and purified by proprietary chromatographic techniques.

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