NrdD Protein, E.coli (His)

Cat. No.:	HY-P71704
Synonyms:	nrdD; b4238; JW4197; Anaerobic ribonucleoside-triphosphate reductase
Species:	E.coli
Source:	E. coli
Accession:	P28903 (1M-712G)
Gene ID:	948755
Molecular Weight:	Approximately 84.0 kDa

PROPERTIES

AA Sequence

M T P H V M K R D G C K V P F K S E R I K E A I L R A A K A A E V D D A D Y C A
T V A A V V S E Q M Q G R N Q V D I N E I Q T A V E N Q L M S G P Y K Q L A R A
Y I E Y R H D R D I E R E K R G R L N Q E I R G L V E Q T N A S L L N E N A N K
D S K V I P T Q R D L L A G I V A K H Y A R Q H L L P R D V V Q A H E R G D I H
Y H D L D Y S P F F P M F N C M L I D L K G M L T Q G F K M G N A E I E P P K S
I S T A T A V T A Q I I A Q V A S H I Y G G T T I N R I D E V L A P F V T A S Y
N K H R K T A E E W N I P D A E G Y A N S R T I K E C Y D A F Q S L E Y E V N T
L H T A N G Q T P F V T F G F G L G T S W E S R L I Q E S I L R N R I A G L G K
N R K T A V F P K L V F A I R D G L N H K K G D P N Y D I K Q L A L E C A S K R
M Y P D I L N Y D Q V V K V T G S F K T P M G C R S F L G V W E N E N G E Q I H
D G R N N L G V I S L N L P R I A L E A K G D E A T F W K L L D E R L V L A R K
A L M T R I A R L E G V K A R V A P I L Y M E G A C G V R L N A D D D V S E I F
K N G R A S I S L G Y I G I H E T I N A L F G G E H V Y D N E Q L R A K G I A I
V E R L R Q A V D Q W K E E T G Y G F S L Y S T P S E N L C D R F C R L D T A E
F G V V P G V T D K G Y Y T N S F H L D V E K K V N P Y D K I D F E A P Y P P L
A N G G F I C Y G E Y P N I Q H N L K A L E D V W D Y S Y Q H V P Y Y G T N T P
I D E C Y E C G F T G E F E C T S K G F T C P K C G N H D A S R V S V T R R V C
G Y L G S P D A R P F N A G K Q E E V K R R V K H L G N G Q I G

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
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	NrdD is an enzyme that plays a crucial role in nucleotide metabolism by catalyzing the conversion of ribonucleotides into deoxyribonucleotides. This enzymatic activity is essential for DNA synthesis and repair processes within the cell. NrdD contributes to the balance of deoxyribonucleotide pools necessary for the accurate and efficient replication of DNA. The enzyme is capable of reducing each of the four common ribonucleoside triphosphates, underscoring its versatility in modifying a range of nucleotide substrates. It has to highlight NrdD's central role in nucleotide biosynthesis, emphasizing its significance in providing the precursors required for the synthesis and maintenance of DNA, which is fundamental for various cellular processes.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA