

Recombinant human Glyoxalase II protein

Catalog Number: ATGP0808

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-260aa

UniProt No.

Q16775

NCBI Accession No.

NP_001035517

Alternative Names

Hydroxyacylglutathione hydrolase, GLO, GLX2, Glyoxalase II, HAGH1

PRODUCT SPECIFICATION

Molecular Weight

31.4 kDa (284aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.5) containing 10% glycerol

Purity

> 95% by SDS-PAGE

Biological Activity

Specific activity is > 500unit/mg, and is defined as the amount of enzyme that reduce 1.0 umole of 5,5 - Dithiobis(2-nitrobenzoic acid) (DTNB) with reduced glutathione per minute at pH 7.5 at 37C.

Tag

His-Tag

Application

Enzyme Activity, SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

HAGH is a member of the glyoxalase family and a thiolesterase which hydrolyses S-lactoyl-glutathione to reduced glutathione and D-lactate. This protein is a detoxifying enzyme of glycolysis byproduct methylglyoxal and a target of p63 and p73 and serves as a pro-survival factor of the p53 family. It exists only as a monomer

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and binds two zinc ions per subunit. Recombinant human HAGH protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

Amino acid Sequence

MGSSHHHHHHH SGLVPRGSH MGSHMKVEVL PALTDNYMYL VIDDETKEAA IVDPVQPQKV VDAARKHGVK LTTVLTHHHH
WDHAGGNEKL VKLESGLKVY GGDDRIGALT HKITHLSTLQ VGSLNVKCLA TPCHTSGHIC YFVSKPGGSE PPAVFTGDTL
FVAGCGKFYE GTADEMCKAL LEVLGRLPPD TRVYCGHEYT INNLKFARHV EPGNAAIREK LAWAKEKYSI GEPTVPSTLA
EFTYNPFMR VREKTVQQA GETDPVTTMR AVRREKDQFK MPRD

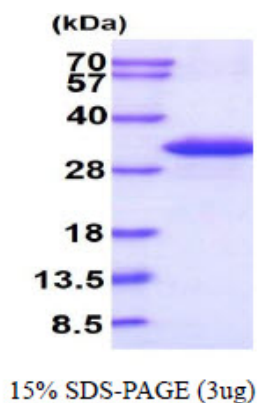
General References

Vila AJ., et al. (2010) *J Inorg Biochem.* 104(7):726-31.

Crowder MW., et al (2009) *Biochemistry.* 48(23):5426-34.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.