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# Recombinant human Glyoxalase II protein

Catalog Number: ATGP0808

#### PRODUCT INFORMATION

# **Expression system**

E.coli

#### **Domain**

1-260aa

#### **UniProt No.**

016775

#### **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**

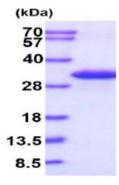
MGSSHHHHHH SSGLVPRGSH MGSHMKVEVL PALTDNYMYL VIDDETKEAA IVDPVQPQKV VDAARKHGVK LTTVLTTHHH WDHAGGNEKL VKLESGLKVY GGDDRIGALT HKITHLSTLQ VGSLNVKCLA TPCHTSGHIC YFVSKPGGSE PPAVFTGDTL FVAGCGKFYE GTADEMCKAL LEVLGRLPPD TRVYCGHEYT INNLKFARHV EPGNAAIREK LAWAKEKYSI GEPTVPSTLA EEFTYNPFMR VREKTVQQHA GETDPVTTMR AVRREKDQFK 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**



15% SDS-PAGE (3ug)

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

