

## GGACT Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70902
<b>Synonyms:</b>	Gamma-Glutamylaminocyclotransferase; GGACT; AIG2-Like Domain-Containing Protein 1; A2LD1
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q9BVM4 (M1-R153)
<b>Gene ID:</b>	87769
<b>Molecular Weight:</b>	Approximately 18.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>           M A L V F V Y G T L    K R G Q P N H R V L    R D G A H G S A A F    R A R G R T L E P Y            P L V I A G E H N I    P W L L H L P G S G    R L V E G E V Y A V    D E R M L R F L D D            F E S C P A L Y Q R    T V L R V Q L L E D    R A P G A E E P P A    P T A V Q C F V Y S            R A T F P P E W A Q    L P H H D S Y D S E    G P H G L R Y N P R    E N R         </p>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, 10% Glycerol, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	<p>GGACT (Gamma-glutamylamine cyclotransferase), also known as 5-oxoprolinase, plays a crucial role in the degradation of proteins cross-linked by transglutaminases by cleaving the cross-link between a lysine and a glutamic acid residue. Additionally, GGACT catalyzes the formation of 5-oxo-L-proline from L-gamma-glutamyl-L-epsilon-lysine. Notably, GGACT exhibits inactivity with substrates such as L-gamma-glutamyl-L-alpha-cysteine and L-gamma-glutamyl-L-alpha-alanine, suggesting substrate specificity in its enzymatic activity. The enzyme's ability to target specific cross-linked protein structures highlights its importance in cellular processes associated with protein turnover and degradation.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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