

CHAC1 Protein, Human

Cat. No.:	HY-P701945
Synonyms:	CHAC1; Glutathione-specific gamma-glutamylcyclotransferase 1; Gamma-GCG 1; Blocks Notch protein; Botch; Cation transport regulator-like protein 1
Species:	Human
Source:	E. coli
Accession:	Q9BUX1 (K2-V222)
Gene ID:	79094
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	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.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	CHAC1, a key player in cellular processes, catalyzes the cleavage of glutathione into 5-oxo-L-proline and a Cys-Gly dipeptide, exhibiting specificity for glutathione over other gamma-glutamyl peptides. Its enzymatic action on glutathione is crucial as glutathione depletion is a significant factor in apoptosis initiation and execution. CHAC1 further serves as a pro-apoptotic component within the unfolded protein response pathway, mediating the effects of the ATF4-ATF3-DDIT3/CHOP cascade. Additionally, CHAC1 functions as a negative regulator of the Notch signaling pathway, impacting embryonic neurogenesis by inhibiting Notch cleavage through furin. This inhibition maintains Notch in an immature, inactive form, thereby promoting neurogenesis in embryos.
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Caution: Product has not been fully validated for medical applications. For research use only.

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