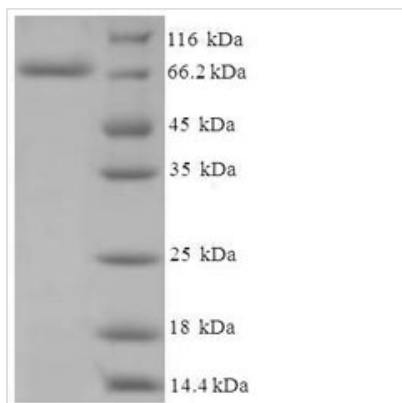


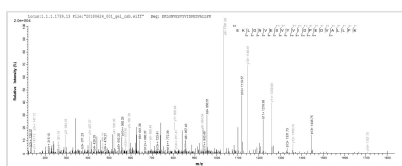


Recombinant Human Cholesterol side-chain cleavage enzyme, mitochondrial (CYP11A1)

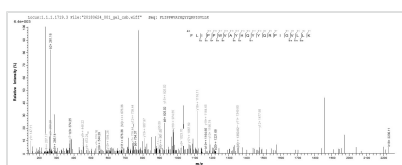
Product Code	CSB-EP006389HU
Relevance	Catalyzes the side-chain cleavage reaction of cholesterol to pregnenolone.
Abbreviation	Recombinant Human CYP11A1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P05108
Alias	CYPXIA1Cholesterol desmolaseCytochrome P450 11A1Cytochrome P450(scc)
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	ISTRSPRPFNEIPSPGDNGWLNLYHFWRETGTHKVLHHVQNFQKYGPIYREK LGNVESVYVIDPEDVALLFKSEGNPERFLIPPWVAYHQYYQRPIGVLLKKSAA WKKDRVALNQEVMapeatKNFLPLLDVSRDFVSVLHRRIKKAGSGNYSGLDIS DDLFRFAFESITNVIFGERQGMLEEVVNPEAQRFDIAIYQMFHTSVPMNLNPPD LFRLFRKTWKDHVAAWDVIFSKADIYTQNFYWELRQKGSVHHDYRGILYRLL GDSKMSFEDIKANVTEMLAGGVDTTSMTLQWHLIYEMARNLKVQDMLRAEVL ARHQAQGDmatmlQLVPLLKASIKETLRLHPISVTLQRYLVNDLVLRDYMIPAK TLVQVAIYALGREPTFFFDPENFDPTRWLSKDKNITYFRNLGFGWGVVRQCLGR RIAELEMTIFLINMLENFRVEIQHLSDVGTTFNILMPEKPISFTFWPFNQEATQQ
Research Area	Metabolism
Source	E.coli
Target Names	CYP11A1
Expression Region	40-521aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	72.1kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP006389HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) CYP11A1.



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Description

This recombinant Human CYP11A1 protein is an E.coli expressed protein (Full Length of Mature Protein) with N-terminal 6xHis-SUMO tag and its purity is 90%+ determined by SDS-PAGE. With the appropriate cDNA and PCR methods, CYP11A1 expression plasmids can be rapidly produced. which must undergo denaturation and folding cycle, can be recovered with more modest yields. Hence, using small-scale fermentations and laboratory-scale processing equipment, CYP11A1 proteins (or subdomains thereof) can usually be produced in sufficient quantities to initiate most studies including detailed structural determinations. which must undergo denaturation and folding cycle, can be recovered with more modest yields. Hence, using small-scale fermentations and laboratory-scale processing equipment, CYP11A1 proteins (or subdomains thereof) can usually be produced in sufficient quantities to initiate most studies including detailed structural determinations.

CYP11A1 is the first and rate-limiting enzyme in the steroidogenic pathway that contributes to the conversion of cholesterol to pregnenolone. It thus plays a major role in the modulation of steroidogenesis. CYP11A1 is primarily expressed in the adrenal cortex. Mutations in the CYP11A1 gene induce steroid hormone deficiency and can lead to lipid congenital adrenal hyperplasia and are related to primary adrenal insufficiency (PAI) and disorders of sex development (DSD) in 46, XY patients. CYP11A1 is also involved in the development of peanut allergy, modulating peanut-induced allergic responses through effects on steroidogenesis. As a result, CYP11A1 is a unique target for the regulation and therapy of peanut allergy.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the



contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.