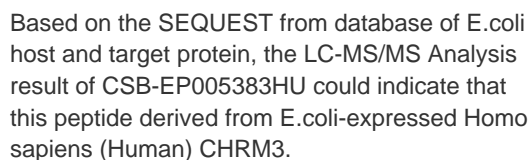
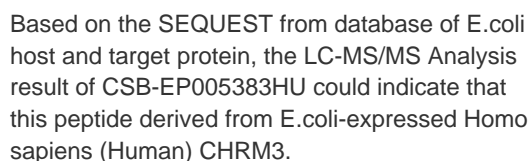




Recombinant Human Muscarinic acetylcholine receptor M3 (CHRM3), partial

Product Code	CSB-EP005383HU
Relevance	The muscarinic acetylcholine receptor mediates various cellular responses, including inhibition of adenylate cyclase, breakdown of phosphoinositides and modulation of potassium channels through the action of G proteins. Primary transducing effect is Pi turnover.
Abbreviation	Recombinant Human CHRM3 protein, partial
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.	P20309
Storage Buffer	Tris-based buffer,50% glycerol
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	RIYKETEKRTKELAGLQASGTEAETENFVHPTGSSRSCSSYELQQQSMKRSN RRKYGRCHFWFTTKSWKPSSEQMDQDHSSSDSWNNNDAAASLENSASSDE EDIGSETRAIYSIVLKLPGHSTILNSTKLPSSDNLQVPEEEELGMVDLERKADKLQ AQKSVDDGGSFPSKFSKLPIQLESAVDTAKTSDVNSSVGKSTATLPLSFKEATL AKRFALKTRSQITKRKRMSLVKEKKAQAQT
Research Area	others
Source	E.coli
Target Names	CHRM3
Expression Region	253-492aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-B2M-tagged
Mol. Weight	40.7kDa
Protein Length	Partial
Image	



This recombinant human muscarinic acetylcholine receptor M3 (CHRM3) features a purity greater than 90%, as measured by SDS-PAGE. It is expressed from the expression vector carrying the gene encoding the 253-492aa of human CHRM3 and the N-terminal 6xHis-B2M-tag gene in *E. coli*. It is available in both liquid and lyophilized forms.

The human CHRM3 is involved in several critical biological processes, including glandular secretion, smooth muscle contraction, and modulation of insulin secretion from pancreatic islets [1][2]. It is predominantly expressed in tissues such as the brain, lungs, and gastrointestinal tract, where it contributes to regulating autonomic functions and influences processes like inflammation and cell proliferation. In the pancreas, CHRM3 is crucial in enhancing glucose-induced insulin secretion. Studies have demonstrated that stimulation of the CHRM3 leads to increased insulin release, which is essential for maintaining glucose homeostasis [1][3]. CHRM3's activation is mediated through phosphorylation processes that enhance its signaling capabilities, particularly in response to agonists like acetylcholine and pilocarpine [4][5].

Dysregulation of CHRM3 has been implicated in various pathophysiological conditions, including asthma, obesity, and certain neurodegenerative diseases. The activation of CHRM3 can promote tumor cell proliferation and migration, particularly in small-cell lung carcinoma and gastric cancer [6][7]. The CHRM3 signaling involves various intracellular pathways, including the activation of protein kinase D1 and the mitogen-activated protein kinase (MAPK) pathway, which are crucial for mediating the effects of M3 receptor activation on cell



proliferation and insulin secretion [1][3][8].

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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.