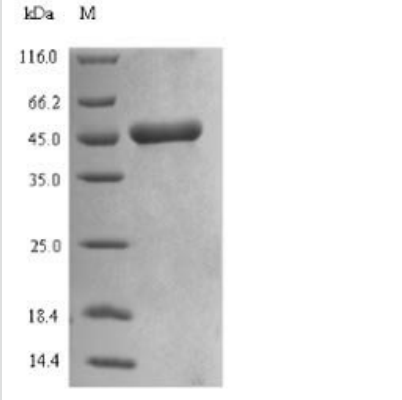
Recombinant Triticum aestivum Alpha/beta-gliadin MM1

Product Code	CSB-EP323861TQN
Relevance	Gliadin is the major seed storage protein in wheat.
Abbreviation	Recombinant Triticum aestivum Alpha/beta-gliadin MM1 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.	P18573
Product Type	Recombinant Proteins
Immunogen Species	Triticum aestivum (Wheat)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	VRVPVPQLQPQNPSQQQPQEQVPLVQQQQFPGQQQPFPPQQPYPQPQPFP SQQPYLQLQPFPQPQLPYPQPQLPYPQPQLPYPQPQPFRPQQPYPQSQPQY SQPQQPISQQQQQQQQQQQQKQQQQQQQQILQQILQQQLIPCRDVVLQQHS IAYGSSQVLQQSTYQLVQQLCCQQLWQIPEQSRCQAIHNVVHAIILHQQQQQQ QQQQQQPLSQVSFQQPQQQYPSGQGSFQPSQQNPQAQGSVQPQQLPQFE EIRNLALETLPAMCNVYIPPYCTIAPVGIFGTN
Research Area	Others
Source	E.coli
Target Names	N/A
Protein Names	Recommended name: Alpha/beta-gliadin MM1Alternative name(s): Prolamin
Expression Region	21-307aa
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	49.3kDa
Protein Length	Full Length of Mature Protein
Image	



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

Description

In the production of recombinant Triticum aestivum Prolamin (Alpha/beta-gliadin MM1), the gene of Prolamin (21-307aa) was cloned into a vector and expressed as prolamin protein in E.coli. The plasmids with the copy of the gene of Prolamin, or the expression vector, were often used to enhance gene expression. Every step of production was undergone with a strict QC system. N-terminal 6xHis-SUMO tag was used in the process. The purity is 90%+ determined by SDS-PAGE.

Prolamins are the major storage proteins in most cereal grains. They include zein in corn, gliadin in wheat, hordein in barley, and kafirin in sorghum. Prolamins can be classified into subgroups depending on their molecular weight and amino acid composition. Moreover, their unique biocompatibility, biodegradability, and nutritional functionalities offer promising potential in food applications. Based on their different solubilities and their related structures, prolamins are generally divided into four groups: α- (most abundant), β-, γ-, and δ-/ω- prolamins. They have poor water solubility because they contain a large number of nonpolar amino acids. Prolamin molecules can easily self-assemble into micro/nanoparticles because of their amphiphilic properties. This serves as a driving force to extensively study them as potential delivery systems for different bioactive compounds.

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.