



Recombinant Rat Gamma-crystallin D (Crygd)

Product Code	CSB-EP006020RA-B
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P10067
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	>85% (SDS-PAGE)
Sequence	GKITFYEDR GFQGRHYECS TDHSNLQPYF SRCNSVRVDS GCWMLYEQPN FTGCQYFLRR GDYPDYQQWM GFSDSVRSCR LIPHAGSHRI RLYEREDYRG QMVEFTEDCP SLQDRFHFNE IYSLNVLEGC WVLYEMTNYR GRQYLLRPGE YRRYHDWGAM NARVGLRRV MDFY
Source	E.coli
Target Names	Crygd
Protein Names	Recommended name: Gamma-crystallin D Alternative name(s): Gamma-D-crystallin Gamma-crystallin 2-2
Expression Region	2-174
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also considered as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Gamma-crystallins are a homogeneous group of highly symmetrical, monomeric proteins typically lacking connecting peptides and terminal extensions. They are differentially regulated after early development. Four gamma-crystallin genes (gamma-A through gamma-D) and three pseudogenes (gamma-E, gamma-F, gamma-G) are tandemly organized in a genomic segment as a gene cluster. Whether due to aging or mutations in specific genes, gamma-crystallins have been involved in cataract formation.
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.