

PRODUCT INFORMATION

Target	ZP3
Synonyms	Zona pellucida sperm-binding protein 3;Sperm receptor;ZP3A/ZP3B;Zp-3;Zona pellucida protein C
Description	Recombinant human ZP3 protein with C-terminal 6×His tag
Delivery	In Stock
Uniprot ID	P21754
Expression Host	HEK293
Tag	C-6×His Tag
Molecular Characterization	ZP3(Gln23-Ser386) 6×His tag
Molecular Weight	The protein has a predicted molecular mass of 66.6 kDa after removal of the signal peptide. The apparent molecular mass of ZP3-His is approximately 100-130 kDa due to glycosylation.
Purity	The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.
Formulation & Reconstitution	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
Storage & Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.
Background	The zona pellucida is an extracellular matrix that surrounds the oocyte and early embryo. It is composed primarily of three or four glycoproteins with various functions during fertilization and preimplantation development. The protein encoded by this gene is a structural component of the zona pellucida and functions in primary binding and induction of the sperm acrosome reaction. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a C-terminal consensus furin cleavage site, and a transmembrane domain. It is hypothesized that furin cleavage results in release of the mature protein from the plasma membrane for subsequent incorporation into the zona pellucida matrix. However, the requirement for furin cleavage in this process remains controversial based on mouse studies. A variation in the last exon of this gene has previously served as the basis for an additional ZP3 locus; however, sequence and literature review reveals that there is only one full-length ZP3 locus in the human genome. Another locus encoding a bipartite transcript designated POMZP3 contains a duplication of the last four exons of ZP3, including the above described variation, and maps closely to this gene. [provided by RefSeq, Jul 2008]
Usage	Research use only



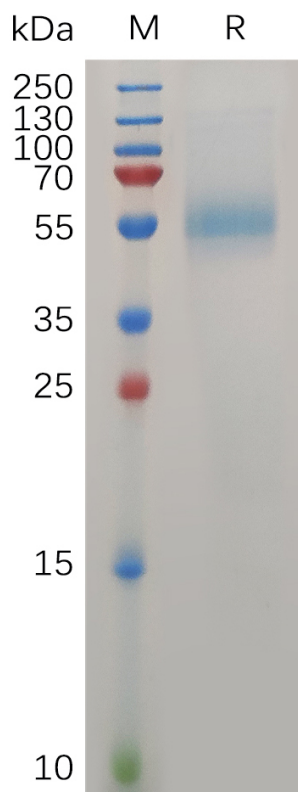


Figure 1. Human ZP3 Protein, His Tag on SDS-PAGE under reducing condition.

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